# PUBLIC SCHOOL FACILITIES ELEMENT

## A. INTRODUCTION

Public schools are critical components to the well-being and future of a community. Residential development occurring within the community is the primary factor associated with student population growth within a public school system. Because of the relationship between residential development and the provision of public schools, coordination among Brevard School District, Brevard County and the Municipalities of Brevard County is critical to ensure that public school capacity needs for future student growth can be met within the public school system.

Recognizing the importance of public schools, the 2005 Florida Legislature enacted legislation amending Sections 163.3180 and 163.3177, Florida Statutes (F.S.), mandating the implementation of public school concurrency supported by data and analysis. This Data and Analysis Report has been prepared in accordance with the requirements of 163.3177(12) (c), F.S. and 9J-5.025(2), Florida Administrative Code (F.A.C.), to detail the methods and analyze the results of the study that have been employed to support the Public School Facilities Element (PSFE) for the School Concurrency Program.

The School District of Brevard County along with Brevard County, and the Local Governments participating in school concurrency including, the City of Cape Canaveral, the City of Cocoa, the City of Cocoa Beach, the City of Indian Harbour Beach, the Town of Indialantic, the Town of Malabar, the City of Melbourne, the Town of Melbourne Beach, the City of Palm Bay, the Town of Palm Shores, the City of Rockledge, the City of Satellite Beach, the City of Titusville, and the City of West Melbourne. The Towns of Melbourne Village and Grant-Valkaria are exempt from school concurrency based on the criteria contained in 163.3177(12) (b), F.S. At the time of their comprehensive plan's evaluation and appraisal report, the Towns of Melbourne Village and Grant-Valkaria must determine if they continue to meet the criteria as an exempt municipality.

### 1. Purpose of Report

The purpose of the Data and Analysis Report is to present and explain all applicable data that are incorporated in the decision making process upon which the Public School Facilities Element is based. It verifies that a financially feasible school concurrency program which achieves and maintains an adopted level of service for schools in Brevard County is established. The Data and Analysis Report includes inventories, estimates, projections, data analyses, maps, and recommendations for the public school concurrency program. The Report identifies any assumptions made and methodologies employed. This data and related analysis will be used to plan, anticipate growth and identify revenue requirements and sources.

### 2. Response to the (DCA) Objections, Recommendations and Comments Report

This Report addresses the Department of Community Affairs (DCA) Objections, Recommendations and Comments (ORC) Reports to Brevard local governments in 2008 and provides the participating Local Governments within the Brevard County School District with the statutorily required updated data and analysis necessary to adopt amendments to the Capital Improvements Element (CIE), and a Public School Facilities Element (PSFE), consistent with the Interlocal Agreement for Public School Facility Planning and School Concurrency (Attachment A) as amended, Subsection 9J-5.025(2), F.A.C. and Chapter 163, F.S., including:

- Demographic profile
- Land development patterns
- School utilization and enrollment adjustments
- Financial feasibility
- Levels of service standards (and Tiered LOS)
- Public infrastructure
- Co-location of facilities

The data and analysis has been updated to reflect changes in the data and provide for the Comprehensive Plans to be consistent with the Interlocal Agreement and the Department of Education accepted methodology. The data and analysis and the adopted goals, objectives and policies of the PSFE ensures coordination between the School District, Local Governments, and County in planning and permitting residential development and in adding school capacity in order that capacity at the adopted level of service standard is available at the time of the impacts of residential development.

## B. BREVARD COUNTY INFORMATION (POPULATION / TRENDS)

### 1. Overall Population

Population data were collected for the Municipalities and the unincorporated areas of the County. Local governments were queried to determine their methods for developing population projections. Generally, the County and Municipalities do not produce their own population projections, instead they rely on projections from the University of Florida’s Bureau of Economic and Business Research (BEBR) or the Shimberg Center for Affordable Housing.

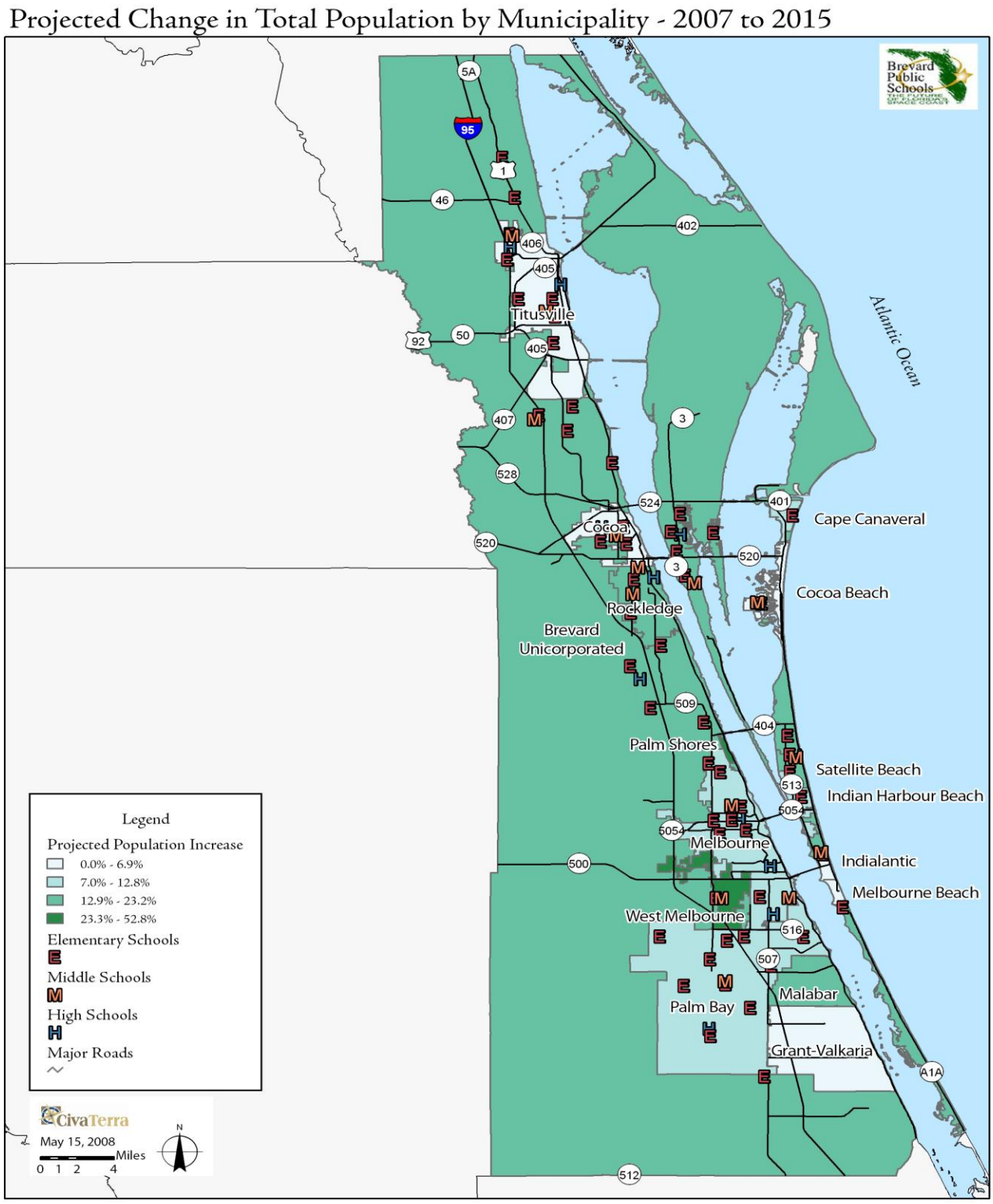
Table 1 below details 1990 and 2000 U.S. Census estimates; the 2007 data are BEBR population estimates, and projections for 2010-2030 are from University of Florida's Shimberg Center for Affordable Housing for Brevard County and the Municipalities. Figure 1 depicts the County map showing the total percentage increase in population by municipality though 2015.

**Table 1-Brevard County/Municipal Population 1990-2030 (Updated)**

| | 1990 | 2000 | 2007 | 2010 | 2015 | 2020 | 2025 | 2030 |
|---|---|---|---|---|---|---|---|---|
| Brevard County | 398,978 | 476,230 | 552,109 | 582,271 | 630,577 | 675,689 | 715,780 | 753,090 |
| Cape Canaveral | 8,014 | 8,829 | 10,526 | 10,891 | 11,666 | 12,393 | 13,054 | 13,680 |
| Cocoa | 17,722 | 16,412 | 17,164 | 17,851 | 18,018 | 18,124 | 18,151 | 18,138 |
| Cocoa Beach | 12,123 | 12,482 | 12,805 | 13,174 | 13,414 | 13,612 | 13,747 | 13,860 |
| Grant-Valkaria | | | 3,907 | | | | | |
| Indialantic | 2,844 | 2,944 | 3,009 | 3,142 | 3,215 | 3,274 | 3,320 | 3,358 |
| Indian Harbour Beach | 6,933 | 8,152 | 8,715 | 9,275 | 9,811 | 10,287 | 10,684 | 11,031 |
| Malabar | 1,977 | 2,622 | 2,814 | 3,142 | 3,426 | 3,687 | 3,925 | 4,145 |
| Melbourne | 59,646 | 71,382 | 78,386 | 80,180 | 84,739 | 88,767 | 92,120 | 95,065 |
| Melbourne Beach | 3,021 | 3,335 | 3,369 | 3,516 | 3,600 | 3,671 | 3,725 | 3,777 |
| Melbourne Village | 591 | 706 | 724 | 756 | 789 | 816 | 836 | 853 |
| Palm Bay | 62,632 | 79,413 | 101,793 | 103,772 | 114,851 | 125,162 | 134,303 | 142,751 |
| Palm Shores | 210 | 794 | 947 | 1,195 | 1,447 | 1,698 | 1,934 | 2,169 |
| Rockledge | 16,023 | 20,151 | 25,911 | 28,264 | 31,878 | 35,436 | 38,536 | 41,390 |
| Satellite Beach | 9,889 | 9,577 | 10,769 | 11,941 | 12,604 | 13,205 | 13,715 | 14,178 |
| Titusville | 39,352 | 40,605 | 44,526 | 45,573 | 47,236 | 48,709 | 49,925 | 51,009 |
| West Melbourne | 8,399 | 9,824 | 15,777 | 18,455 | 21,860 | 25,302 | 28,703 | 32,228 |
| Brevard-Unincorporated | 148,464 | 188,918 | 210,967 | 231,144 | 252,023 | 271,546 | 289,102 | 305,458 |

*Sources: The 1990 and 2000 data are Census, 2007 is BEBR, and 2010-2030 from UF's Shimberg Center for Affordable Housing.*

**Figure 1-Projected Change in Total Population by Municipality**



## 2. Brevard County Student Populations and Projections

A major objective of school concurrency is the development of a process by which each local government and the school district agree to project student enrollment. In Brevard County, the 2007 Capital Outlay Full Time Equivalency Projection (COFTE) forecast, developed by the State Estimating Conferences, was utilized to develop "***Update No. 1 to the 2007-08 Five-Year Facilities Work Program***." Going forward, the relevant COFTE forecast will be utilized to develop this document each year. Note that this forecast is adjusted to accommodate local government development projections, and the methodology is described in the "Projected Public School Facility Conditions" section. Using the described student projection methodology, Figure 2 compares these forecasts, termed the "Growth Management" forecasts, with the COFTE forecasts for the planning period, as well as the actual student membership for 2006-07 and 2007-08. This information was updated in response to DCA's ORC Reports in 2008 to the local governments regarding the use of the appropriate and consistent data for the Public School Facilities Element and related comprehensive plan amendments.

For the school year 2007-08, the actual student count exceeds the State's COFTE count for Brevard by more than 4000 students. While the COFTE uses a cohort survival method based on an average of the two attendance counts in the fall and early spring, COFTE does not account for the local governments' development patterns as required by 163.31777(2)(a),F.S. and 1013.33(3)(a), F.S. for the geographic distribution of jurisdiction-wide growth forecasts. In order to obtain up-to-date student enrollment projections, these growth management estimates are recalculated each year by the local governments and the School District to adjust for growth and economic trends.

**Figure 2-Updated COFTE/Growth Management Comparison**

| School Year | | COFTE forecast (Summer 2007) | Growth Management Projections | Delta (Growth Mgt - COFTE) |
|---|---|---|---|---|
| | | | | |
| 2006-07 | | 67,132 | 70,717(actual) | 3,585 |
| 2007-08 | | 66,453 | 70,479(actual) | 4,026 |
| 2008-09 | | 66,450 | 70,075 | 3,625 |
| 2009-10 | | 66,796 | 69,618 | 2,822 |
| 2010-11 | | 67,206 | 68,854 | 1,648 |
| 2011-12 | | 67,825 | 69,052 | 1227 |
| *Sources: Brevard Public Schools 2008; Department of Education COFTE 2007* | | | | |

## 3. Student Growth Summary

Table 2 shows summary data provided by the Florida Department of Education (DOE), 2007, reflecting average student enrollments for the County from School Year (SY) 2002 through SY 2006. According to the figures, student population showed a decline between years 2004 and 2006. According to the DOE, between 2002 and 2004, the student population increased by 1.5 percent, but declined by 4.2 percent from 2004 to 2006.

**Table 2-Capital Outlay FTE Enrollment Comparison Updated**

| School Year | DOE COFTE | Year's Increase (Decrease) |
|---|---|---|
| 2002 | 69,056 | -- |
| 2003 | 69,572 | 516 |
| 2004 | 70,103 | 531 |
| 2005 | 68,636 | (1,467) |
| 2006 | 67,132 | (1,504) |
| *Source: Department of Education, 2007* | | |

As noted in the previous Section, the actual student membership counts and Capital Outlay Full Time Equivalent (COFTE) enrollment counts do not agree because of the COFTE measures the average number of students counted two times per year school year, and projections are based on a cohort of those

averages.

The School District's Actual and Projected Student membership is reported in Table 3 below which depicts the enrollment membership and growth management projection data for student enrollment for Brevard owned public schools. This Table does not include charter schools, or special schools and centers.

**Table 3-Student Growth Actual and Projections: Not Including Charter Schools and Special Centers (Updated)**

| | ACTUAL and PROJECTED ENROLLMENT | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **SCHOOL YEAR** | **2002-03** | **2003-04** | **2004-05** | **2005-06** | **2006-07** | **2007-08** | **2008-09** | **2009-10** | **2010-11** | **2011-12** |
| **DISTRICT TOTAL** | **70,047** | **70,946** | **71,750** | **71,692** | **70,717** | **70,479** | **70,075** | **69,618** | **68,854** | **69,052** |
| *Source: Brevard Public Schools 2008* | | | | | | | | | | |

The decline in student population in Brevard is consistent with what other Florida school districts are experiencing. Table 4 is the DOE's 2007 Capital Outlay Full-Time Equivalent Projection Forecast (COFTE) Table, showing actual and projected enrollments. The student projections by COFTE are made by grade level and not by individual schools. Note that Growth Management projections are utilized to apportion the COFTE projections in the District's Five-Year Facilities Program by school.

**Table 4-Brevard District 2007 Capital Outlay FTE Forecast**

| **2007 Capital Outlay FTE Forecast** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Grade | Actual 2004-2005 | Actual 2005-06 | Actual 2006-07 | Projected 2007-2008 | Projected 2008-2009 | Projected 2009-2010 | Projected 2010-2011 | Projected 2011-2012 | Projected 2012-2013 | Projected 2013-2014 |
| | | | | | | | | | | |
| Birth Data for K | 4,761 | 4,990 | 4,823 | 4,817 | 4,894 | 5,203 | 5,241 | 5,436 | 5,548 | 5,664 |
| | | | | | | | | | | |
| PreK | 583 | 544 | 511 | 619 | 640 | 654 | 673 | 687 | 701 | 715 |
| Grade K | 5,183 | 5,289 | 5,012 | 4,867 | 5,021 | 5,316 | 5,392 | 5,576 | 5,700 | 5,821 |
| Grade 1 | 4,980 | 4,938 | 5,007 | 4,728 | 4,684 | 4,816 | 5,089 | 5,177 | 5,347 | 5,471 |
| Grade 2 | 4,932 | 4,807 | 4,861 | 4,953 | 4,812 | 4,762 | 4,885 | 5,154 | 5,253 | 5,422 |
| Grade 3 | 4,900 | 4,927 | 4,727 | 4,881 | 5,066 | 4,901 | 4,825 | 4,933 | 5,195 | 5,291 |
| Grade 4 | 5,156 | 4,662 | 4,605 | 4,806 | 4,947 | 5,171 | 5,036 | 4,965 | 5,073 | 5,347 |
| Grade 5 | 5,416 | 5,099 | 4,729 | 4,731 | 4,877 | 5,021 | 5,246 | 5,117 | 5,044 | 5,150 |
| Grade 6 | 5,325 | 5,236 | 5,134 | 4,843 | 4,789 | 4,935 | 5,080 | 5,308 | 5,182 | 5,106 |
| Grade 7 | 5,801 | 5,462 | 5,563 | 5,413 | 5,067 | 4,994 | 5,137 | 5,287 | 5,520 | 5,407 |
| Grade 8 | 5,651 | 5,662 | 5,389 | 5,523 | 5,325 | 4,991 | 4,909 | 5,042 | 5,190 | 5,415 |
| Grade 9 | 6,582 | 6,206 | 6,289 | 6,150 | 6,410 | 6,238 | 5,875 | 5,747 | 5,867 | 6,034 |
| Grade 10 | 5,755 | 5,932 | 5,537 | 5,400 | 5,406 | 5,608 | 5,497 | 5,202 | 5,069 | 5,147 |
| Grade 11 | 5,297 | 5,433 | 5,286 | 5,063 | 5,039 | 5,043 | 5,212 | 5,135 | 4,879 | 4,742 |
| Grade 12 | 4,542 | 4,439 | 4,481 | 4,476 | 4,367 | 4,346 | 4,350 | 4,495 | 4,430 | 4,209 |
| | **70,103** | **68,636** | **67,132** | **66,453** | **66,450** | **66,796** | **67,206** | **67,825** | **68,450** | **69,277** |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Grade Level Summary | | | | | | | | | | |
| PreK-5 | 31,150 | 30,266 | 29,452 | 29,585 | 30,047 | 30,641 | 31,146 | 31,609 | 32,313 | 33,217 |
| 6-8 | 16,777 | 16,360 | 16,086 | 15,779 | 15,181 | 14,920 | 15,126 | 15,637 | 15,892 | 15,928 |
| 9-12 | 22,176 | 22,010 | 21,594 | 21,089 | 21,222 | 21,235 | 20,934 | 20,579 | 20,245 | 20,132 |
| **PreK-12** | **70,103** | **68,636** | **67,132** | **66,453** | **66,450** | **66,796** | **67,206** | **67,825** | **68,450** | **69,277** |
| | | | | | | | | | | |
| Growth Summary * | | | | | | | | | | |
| PreK-5 | | | | 0 | 0 | 594 | 505 | 463 | 704 | 904 |
| 6-8 | | | | 0 | 0 | 0 | 0 | 456 | 255 | 36 |
| 9-12 | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **PreK-12** | | | | **0** | **0** | **594** | **505** | **919** | **959** | **940** |

## C. EXISTING PUBLIC SCHOOL FACILITY CONDITIONS

The planning for Brevard public school students is complicated by the fact that many students attend choice schools or other school district facilities. For a variety of reasons, nearly one quarter of Brevard's students attend schools outside their home school or "residence" boundaries. These students may attend other public schools offering special programs, or may be in charter schools or special program facilities not used to measure capacity for school concurrency. This reality makes it necessary to adjust forecasts to accurately project student enrollment within each school attendance area for the next five years. Manual adjustments are made to compensate for anomalous and non-recurring growth patterns. The result of this "from- to" analysis has been provided in Appendix A.

Table 5 summarizes the student numbers discussed above for the school year 2007-08.

**Table 5-Brevard County Student Attendance Location Relative to Residence**

| Student attendance summary | Number of Public School Students | Attendance percentage |
|---|---|---|
| Students attending schools within designated areas | 58,786 | 78% |
| Students attending schools in other than designated areas | 16,628 | 22% |
| Brevard public school students in 2007-08 | 75,414 | 100% |
| *Source: Brevard public schools 2008*<br>*Total number of Brevard Public School students 2007-08* | | |

The special programs referred to include magnet programs, International Baccalaureate Programs, and special vocational programs. These schools include the District's five schools of choice, namely Robert Louis Stevenson, Freedom 7, West Melbourne, Edgewood Junior/Senior High, and West Shore Junior/Senior High. Centers that offer programs include the Abeyance Centers, the Halfway House, and the Center for Drug Free Living and Outward Bound, among others. With nearly a quarter of Brevard County Public students attending schools outside the school of their residence, the freedom to choose their schools is an important feature of Brevard's public schools that is highly valued by parents and students alike.

Due to this shifting of students for the opportunity to select programs of their choice, special challenges are presented to the School District to maintain the integrity of its enrollment projections. To address the mandates of school concurrency and ensure the adopted level of service (LOS) is not exceeded in any year, it is important that the annual updating of the student projections incorporate any new growth patterns and movement of students by choice for each year.

## 1. School Enrollment, Facility Capacity, and Existing Utilization (Current Surpluses and Deficiencies)

In addition to taking into account the shifting of students caused by the choice programs, an analysis of existing enrollment, capacity and utilization of the existing public schools in Brevard County is performed to identify existing surpluses and deficiencies in capacity (student stations) by school and by school type. This analysis establishes a base which helps develop the level of service standard for schools. With areas deficient in capacity identified, a determination of the financial cost to add additional capacity to correct the deficiency and/or student boundary adjustments according to school board policy can be made to areas with surplus capacity.

For the school year 2007-08, twenty-two (22) schools in Brevard County have a utilization that exceeds a LOS of 100 percent. Of the 22 schools, 12 are elementary, 2 are middle schools, 2 are Jr/Sr high schools, and 6 are high schools. Table 6 below shows the result of the analysis.

The items highlighted in blue indicate a utilization rate greater than 100 percent. The school capacity figures are based on the Florida Inventory of School Houses (FISH) Manual's capacity analysis, as accepted by the DOE, excluding capacity provided in "portable" classrooms.

**Table 6-Existing Concurrency Service Area Utilization 2007-2008**

| School Name | SY 2007-08 Utilization | School Name | SY 2007-08 Utilization | School Name | SY 2007-08 Utilization |
|---|---|---|---|---|---|
| **Elementary Schools** | | | | **Middle Schools** | |
| Allen | 121% | Manatee | 94% | Central | 66% |
| Andersen | 80% | McAuliffe | 119% | Clearlake | 59% |
| Apollo | 79% | Meadowlane Int. | 57% | Delaura | 75% |
| Atlantis | 107% | Meadowlane Prim. | 82% | Hoover | 72% |
| Audubon | 84% | Mila | 45% | Jackson | 101% |
| Cambridge | 80% | Mims | 75% | Jefferson | 85% |
| Cape View | 64% | Oak Park | 82% | Johnson | 90% |
| Carroll | 111% | Ocean Breeze | 105% | Kennedy | 95% |
| Challenger 7 | 85% | Palm Bay | 82% | Madison | 89% |
| Columbia | 78% | Pinewood | 83% | McNair | 95% |
| Coquina | 74% | Port Malabar | 94% | Southwest | 122% |
| Creel | 71% | Quest | 94% | Stone | 66% |
| Croton | 73% | Riverview | 85% | **Junior / Senior High Schools** | |
| Discovery | 122% | Riviera | 80% | Cocoa Beach | 133% |
| Endeavour | 61% | Roosevelt | 74% | Space Coast | 126% |
| Enterprise | 127% | Sabal | 80% | **High Schools** | |
| Fairglen | 94% | Saturn | 87% | Astronaut | 96% |
| Gardendale | 69% | Sea Park | 63% | Bayside | 139% |
| Gemini | 85% | Sherwood | 105% | Cocoa | 71% |
| Golfview | 90% | South Lake | 85% | Eau Gallie | 103% |
| Harbor City | 100% | Sunrise | 92% | Melbourne | 112% |
| Holland | 67% | Suntree | 113% | Merritt Island | 114% |
| Imperial Estates | 94% | Surfside | 85% | Palm Bay | 103% |
| Indialantic | 104% | Tropical | 84% | Rockledge | 89% |
| Jupiter | 105% | Turner | 85% | Satellite | 109% |
| Lockmar | 78% | University Park | 79% | Titusville | 78% |
| Longleaf | 90% | Westside | 99% | Viera | 66% |
| | | Williams | 127% | | |

XXX% Indicates a utilization rate greater than 100%

*Source: Brevard Public Schools 2008*

## 2. Existing School Facilities

Maps displaying the locations of existing and proposed elementary, middle, jr/sr high and high school facilities are displayed as Figures 3a, 3b, and 3c. The existing / under-construction schools are built / being built on DOE recommended land areas, in accordance with the State Requirements for Educational Facilities (SREF).

Placing all the existing Brevard County Public School District facilities on one map, Figure 4a is provided showing all existing schools and ancillary plants county-wide.

Based on the updated School District student projections and capital budget availability, the anticipated ancillary plants are proposed in accordance with the following updated information:

- New Satellite Beach Bus Compound - Existing SBBC property, 5 acres. New facility to be constructed on same site 2011-12.
- SR 520 Warehouse Addition - Existing SBBC property, 16 acres. Addition to be constructed on same site 2011-12.

These proposed ancillary plants for the School District are displayed in Figure 4b.

**Figure 3a-Existing and Proposed Elementary Schools**

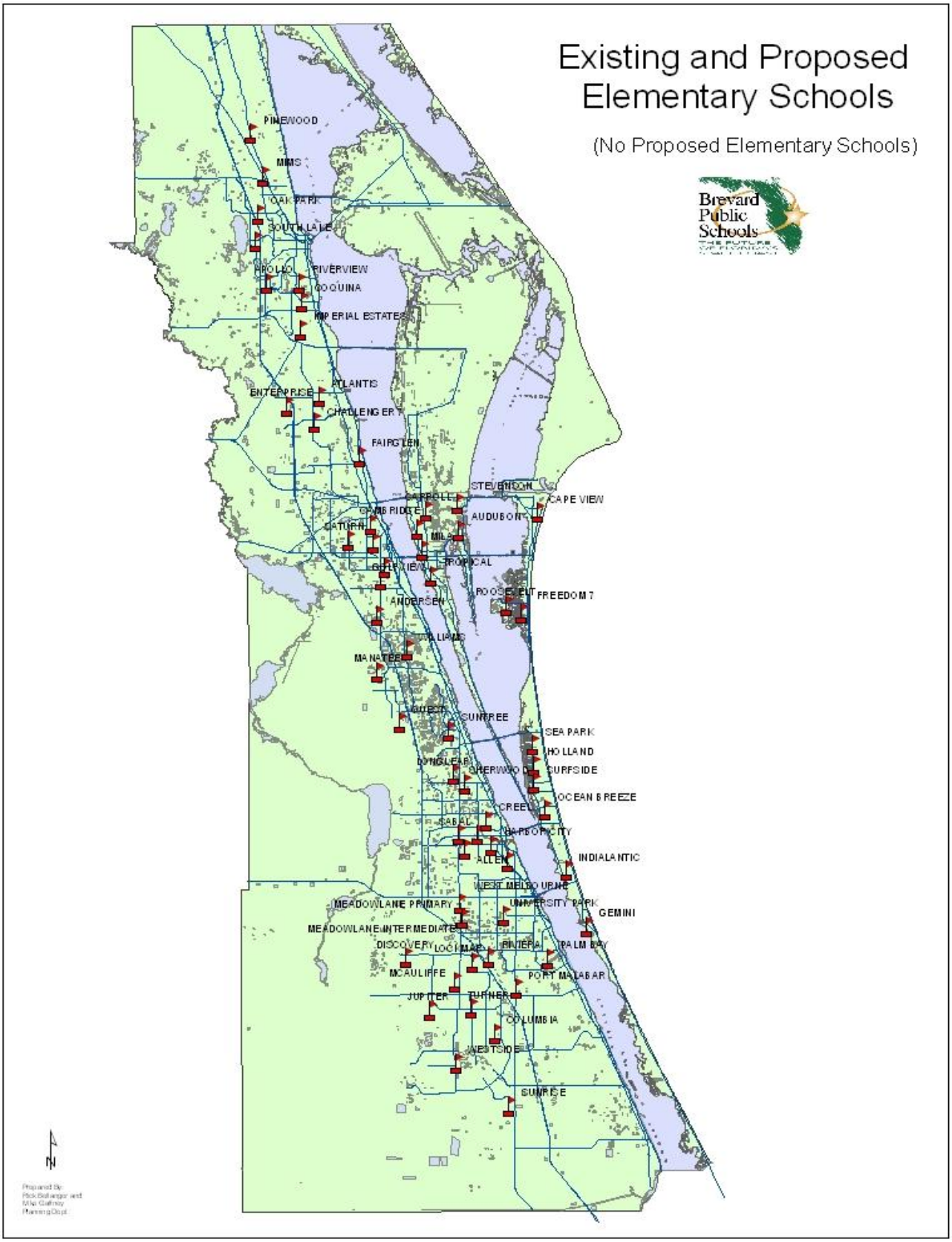


**Figure 3b-Existing and Proposed Middle and Jr/Sr High Schools**

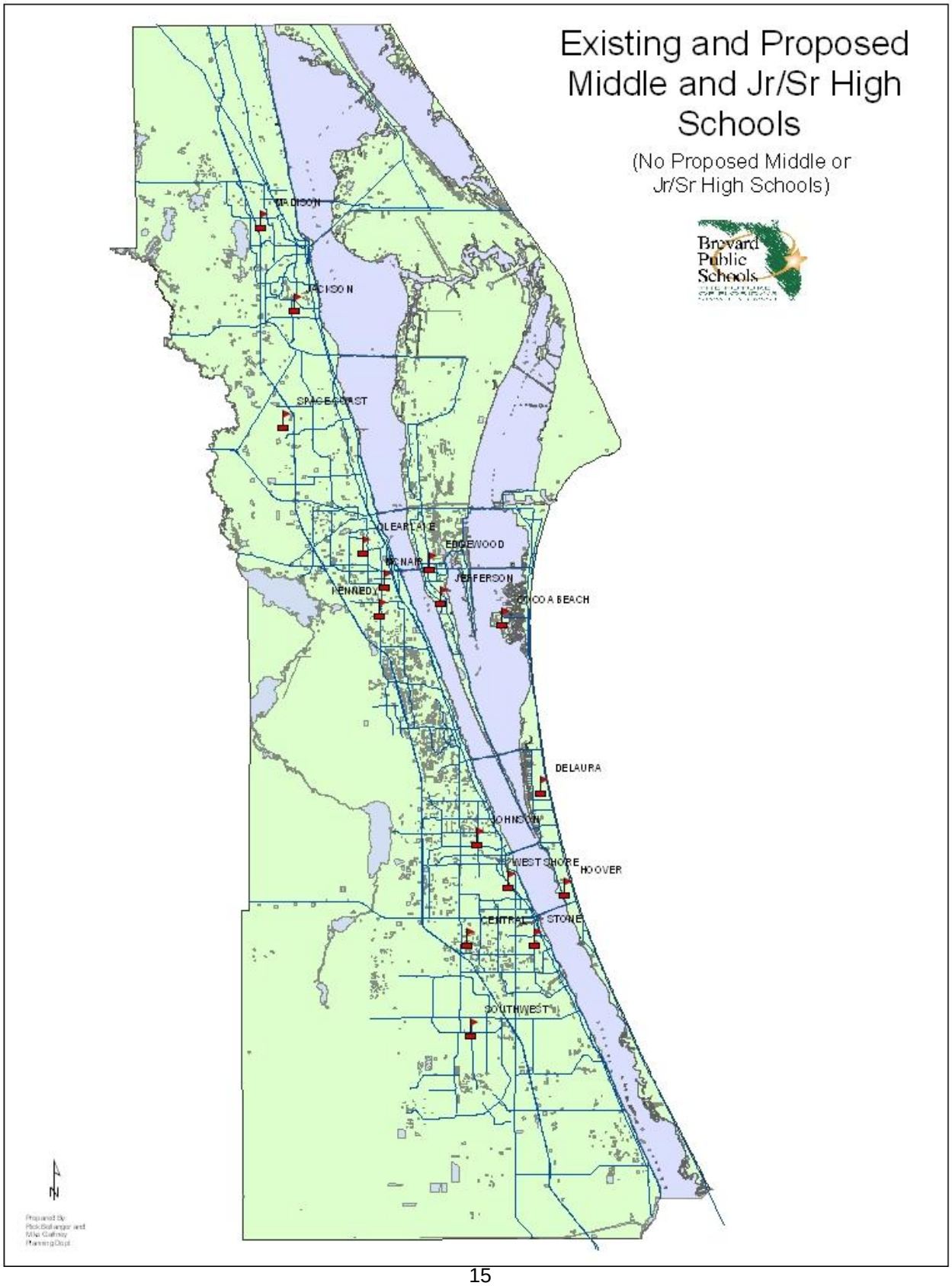


**Figure 3c-Existing and Proposed Senior and Jr/Sr High Schools**

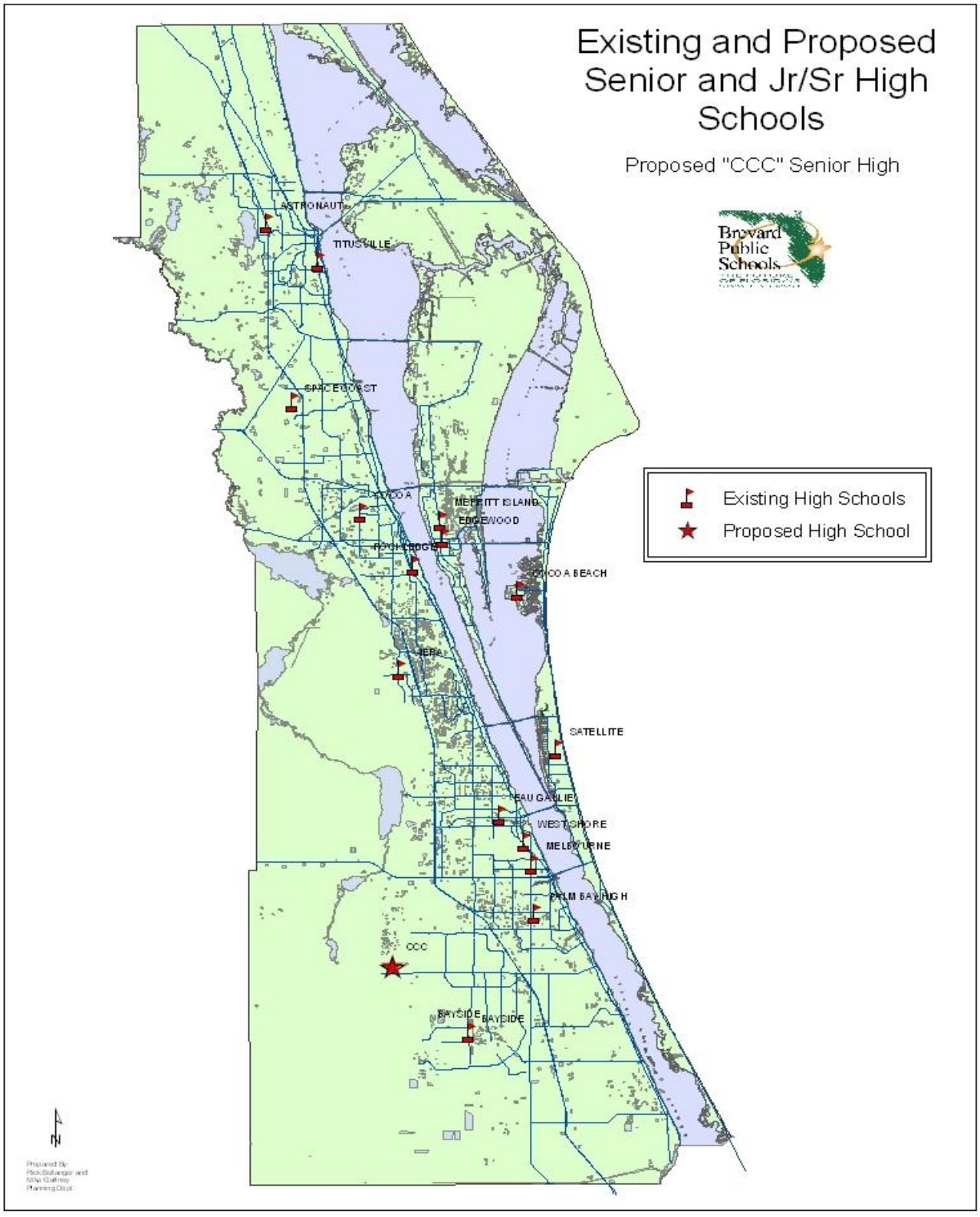


**Figure 4a-Existing Public School Facilities and Ancillary Plants**

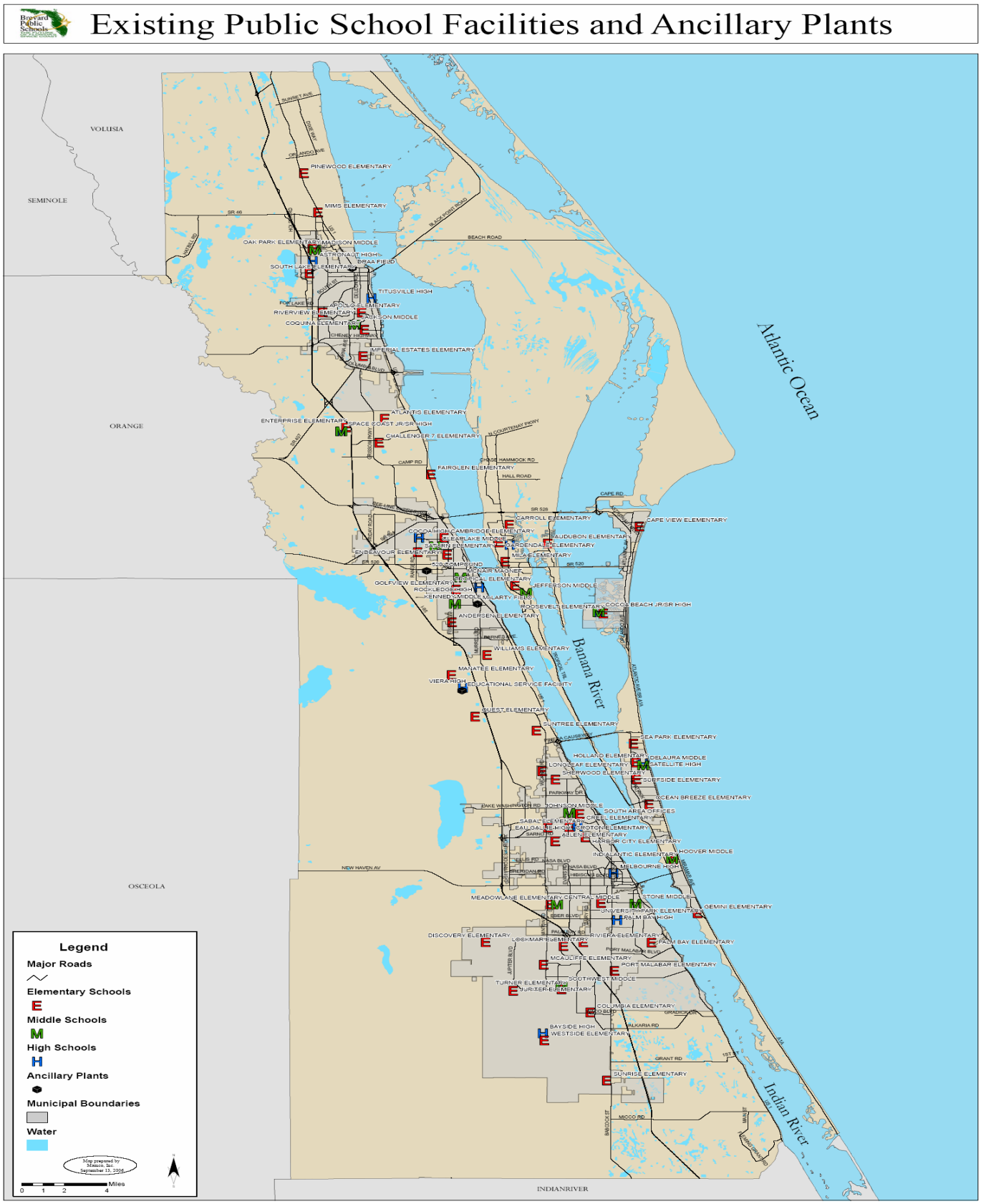
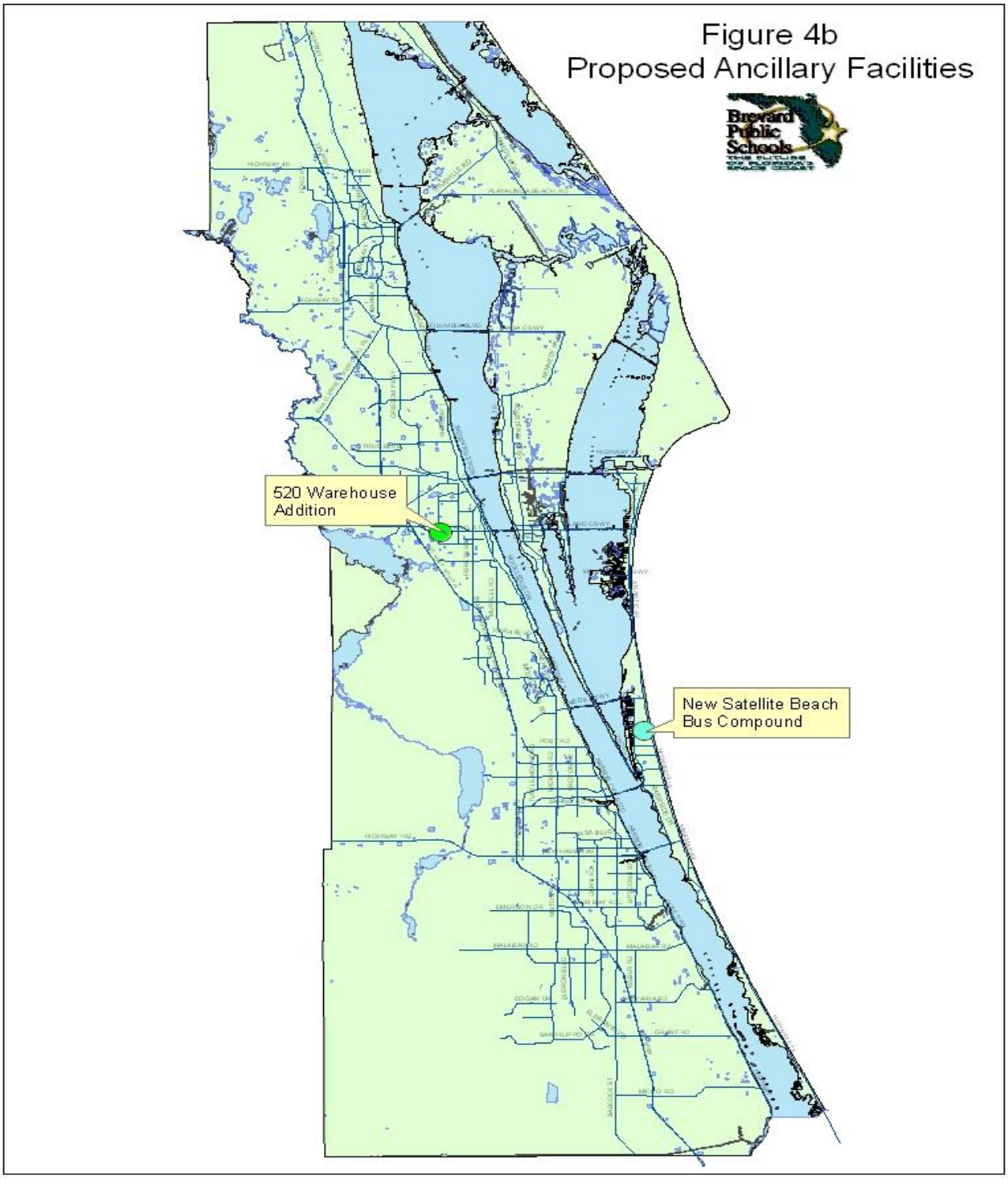


**Figure 4b-Proposed Ancillary Facilities**



## Student Generation Rates

Determining the number of students generated from new residential development is necessary to identify the student impact on public school capacity. In order to calculate the number of students associated with new residential development, a student generation multiplier was created based on the actual students residing in the various housing types. Because the number of students living in a housing unit varies depending on the type of residential housing, the student generation rate (SGR) per residential unit is based on four housing types. These housing types are: single family; multi-family; condominium/ cooperatives; and mobile home.

Condominiums (condos) and cooperatives (co-ops) were not aggregated with the multi-family housing type for two reasons. The real estate market for condos and co-ops differs from that of multi-family housing units, such as apartments and duplexes. The difference in housing types and their associated markets generate unique student multipliers. Historically, condos and co-ops do not generate as many students as multi-family housing units. Secondly, the specificity of the parcel data allowed for the calculation of unique generation rates for condo and co-ops and multi-family housing units.

Two datasets were used to calculate the student generation rates. These datasets were the geographic information systems (GIS) property parcel file from the Brevard County Property Appraiser's office and October 2005 student enrollment data. The 2005 student enrollment data were obtained from the School District and contained student addresses and grade level data. The student address data were geocoded to property parcel data and street centerline data to create a GIS point file with the spatial location of each student based on their address.

Of the 75,646 student records, 71,805 (95 percent) were matched to a property parcel. The remaining 3,841 students were then geocoded to the street centerline file. Of these 3,841 students, 547, or 0.7 percent, were unmatched due to address errors such as post office boxes or unidentifiable address data.

A spatial join was applied to the parcel data and geocoded student data. A spatial join is a type of spatial analysis in which the attributes of features in two datasets are joined together based on the relative location of each feature. In this case, the spatial join linked the point location of each student to a specific property parcel. The result of this operation is one GIS file that contains student data as well as housing type data from the property appraiser.
This study was conducted using over 99 percent of the total student population, not a sample set, and the volume of data used was large enough to offset occasional housing type assignment errors. The total student population used in the multiplier analysis was 72,165. The student population used in the multiplier analysis is smaller than the total student population contained in the October 2005 enrollment data for several reasons. Students with address errors or post office box addresses were not matched to an address by geocoding. Additionally, 1,387 students who attend non-traditional schools,

such as the Space Coast Marine Institute and Crosswinds, were removed from the dataset. Pre-K students were also not included in the multiplier analysis. Charter school students were included in the student population for this analysis.

The number of actual students in Brevard County as of October 29, 2005 are displayed in Table 7 by housing type and school type. In addition to the students summarized in Table 7, 1,096 students were not assigned to a residential land use due to errors in the parcel data and GIS analysis. These students were proportionately distributed to the four housing types based on the housing type distribution for the total student population.

**Table 7-Students by Residential Housing Type and School Type**

| | Single Family | Condo/ Co-Op | Mobile Home | Multi Family |
|---|---|---|---|---|
| **Elementary (K-6)** | 30,678 | 829 | 1,490 | 4,388 |
| **Middle (7-8)** | 9,671 | 283 | 413 | 1,041 |
| **High (9-12)** | 19,626 | 446 | 585 | 1,619 |
| **All Students** | 59,975 | 1,558 | 2,488 | 7,048 |
| *Source: Civaterra, Inc.; 2006 (includes Jr/Sr High students)* | | | | |

Table 8 details the 2005 housing type counts for Brevard County. These data were obtained from several sources. The single family and condo/co-op numbers were calculated from the August 2006 property parcel GIS data and were calculated by CivaTerra, Inc. The total number of units, not the total number or parcels, was used to calculate the number of multi-family and mobile home housing units. The mobile home totals are from 2002 and published by the Florida Housing Data Clearinghouse, which is maintained by the University of Florida, and these numbers are published on the county's website. The multi-family unit totals are from 2005 and published by the University of Florida's Bureau of Economic and Business Research (BEBR).

**Table 8-Dwelling Units by Type**

| | Single Family | Condo/ Co-Op | Mobile Home | Multi Family |
|---|---|---|---|---|
| **Occupied Dwelling Units** | 157,455 | 26,286 | 20,784 | 22,881 |
| *Source: Civaterra, Inc.; 2006* | | | | |

Table 9 below shows the resulting student generation rates by unit type and school type.

**Table 9-Brevard County School Concurrency Student Generation Rates**

| | Single Family | Condo/ Co-Op | Mobile Home | Multi Family |
|---|---|---|---|---|
| **Elementary** | 0.20 | 0.03 | 0.07 | 0.19 |
| **Middle** | 0.06 | 0.01 | 0.02 | 0.05 |
| **High** | 0.12 | 0.02 | 0.03 | 0.07 |
| **Total** | 0.38 | 0.06 | 0.12 | 0.31 |
| *Source: Civaterra, Inc.; 2006 (includes Jr/Sr High students)* | | | | |

To determine the student impact of a proposed residential development for school concurrency purposes, a proposed development's projected number and type of unit are converted into the number of projected students by school level within the specific Concurrency Service Area Boundary. Based on the student generation rates in Table 9 above, 100 new single-family housing units constructed in Brevard County, will generate 20 elementary school students, 6 middle school students, and 12 high school students for the Brevard County Public School System.

Because the projection of the number of students that will be generated from new residential development is critical to the school concurrency process, a student generation multiplier was created using the full student population. Consequently, the number of students associated with a development can be calculated by applying the multiplier by school level to the development's proposed number and type of residential housing units.

## D. PROJECTED PUBLIC SCHOOL FACILITY CONDITIONS

### 1. Planning for Student Growth

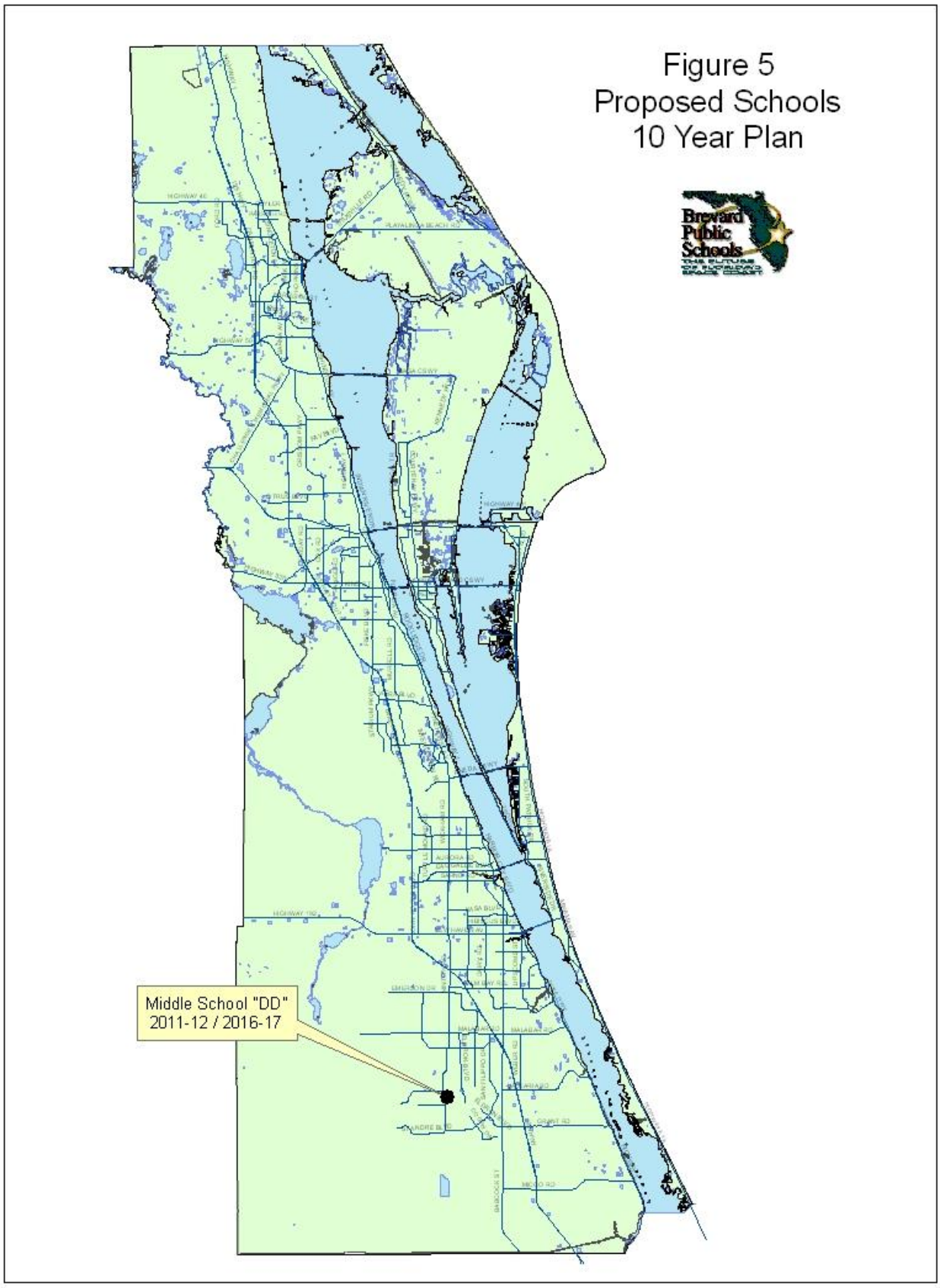
One of the main documents used to plan for new educational facilities is the Educational Plant Survey. The Educational Plant Survey (Attachment B) is prepared once every five years (and updated as necessary within the five year time frame with "spot" surveys), and is a comprehensive and systematic study of present educational and ancillary facilities used for determining future capital needs. This Educational Plant Survey is used as a reference when formulating the District's Tentative Facility Work Program, which includes the Five-Year Capital Facilities Work Program (Attachment C). In accordance with statutes, the Five-Year Facility Program is updated annually. Based on the recommendations of the DCA and DOE, the District in 2008 performed a Spot Survey to update the Educational Plant Survey utilizing COFTE projections. This document is attached in Attachment B. Likewise, the School District has updated the Five-Year Capital Facilities Work Program with COFTE student projections, and this is attached as the revised Attachment C.

With each annual update to the Work Program, the District reviews the existing and projected student growth as determined by COFTE and distributed by school based on local data to prepare for the additional capacity necessary to support

the growth.

The School District also prepares a long range ten and twenty-year plan as a part of the Five-Year Facilities Work Program. Based on the slowing of growth and the DOE required revised projections of students, the School District has reduced the number of projected new schools, ancillary facilities, and additions it currently identifies as necessary within the 10 and 20 year planning horizons. Figure 5 below identifies the location of property owned by the School District and the location of future schools by school type for the “long range” planning period (10 yrs).

**Figure 5-Proposed Schools 10 Year Plan**



## 2. Projected Enrollment

According to state law, the School District is required to accurately project future student enrollment and school capacity annually. The State's DOE Capital Outlay Full Time Equivalent (COFTE) student count is the measure the DOE has required for student projections.

Summary data, shown in Table 10 provided by the Florida Department of Education (DOE), reflects student projections for the County to school year 2013-14. According to the projections by the DOE, student population is expected to decrease from 2006 through 2009, at which point it will start to increase once again. The COFTE student population is projected to jump from 66,450 in 2008-09 to 69,277 students in 2013-14. While this represents a five-year increase of nearly 3000 students, these numbers reflect considerably lower student growth rate than previously anticipated by the DOE. Each year the DOE adjusts its COFTE projections. Therefore, by the School District's careful monitoring of actual student membership, the School District will be able to adjust and plan as needed for future student enrollment.

**Table 10-Capital Outlay FTE Growth Summary**

| School Year | DOE COFTE | Annual Increase (Decrease) |
|---|---|---|
| 2006/07 | 67,132 | -- |
| 2007/08 | 66,453 | (679) |
| 2008/09 | 66,450 | (3) |
| 2009/10 | 66,796 | 346 |
| 2010/11 | 67,206 | 410 |
| 2013-14 | 69,277 | 2071 |
| *Source: Department of Education, July 2007.* | | |

## 3. Projection Method for Brevard Students

As required by the Florida DOE, the School District must rely upon the COFTE projections as the basis of its annual capital planning for the financially feasible Five–Year Capital Facilities Work Program. During the summer of each year, the Florida Department of Education (DOE) publishes grade by grade COFTE enrollment projections for each Florida school district for the next 10 years. The DOE uses an average of the student counts and a standard 'cohort survival' method using five year enrollment trends.

While the DOE methodology used is generally accepted and is considered fairly reliable for long term projections, using the DOE COFTE projections *alone* for annual school concurrency planning presents the School District with several issues. To address the differences in the data, the School District prepares projections school by school, grade by grade modifying information where boundary changes have occurred, development

trends have affected population distribution, and where unique information of housing trends has been provided by local government data.

In preparation for the School District's **2008-09** Capital Facilities Work Program and Five Year Capital Plan, the School Board retained a consulting firm, CivaTerra, to obtain future residential development activity data from the local governments, and to produce student population projections that incorporate the residential growth data. CivaTerra produced student population projections using Davis Demographics software. Davis Demographics is a GIS-based program that uses a cohort survival method, and incorporates future residential growth to produce student population projections. Next the "From-To" analysis discussed in the Section above entitled "*Existing Public School Facility Conditions"* adjusts future enrollments by accounting for students attending schools outside of their residence boundary. Finally, established redistricting schedules, governed by Board policy, are applied to further refine these projections to develop school utilization projections for the end of the planning period of 2011-12. This data provides the basis for the updated student projections and apportionment of COFTE projections to develop the *Update No. 1 to the 2007-08 Five-Year Facilities Work Program.* The CivaTerra model and the student adjustments data are provided in Appendix "A".

The student membership projections developed with the Davis Demographics "School-Site" software are based on birth rates; student mobility rates; and residential development data. When the software calculations have been generated, the sum of all the changes (from-to, established re-districting) is added or subtracted from each school projection generated. The results become the final projections for school concurrency, aka the "Growth Management" projections. These student membership projections will be recalculated each year using the software. Subsequent adjustments to reflect the patterns of student attendance across the county will also be recalculated every year.

In response to the ORC Report, the School District compared the input factors and model results to the School Board's annual enrollment forecast, total population figures, and the COFTE projections to provide consistency with the State's data and determine the financial feasibility of its adopted 2007-08 Capital Plan. The resulting Update No. 1 (Included in Attachment C) demonstrates sufficient capacity for the School District to reach its adopted LOS standard at the end of the planning period. See Appendix C for the full Capital Plan.

## 4. Level of Service Standard

The Level of Service (LOS) standard for schools, as proposed and discussed in this Report, is described as the optimum utilization of schools based on a ratio of permanent capacity to school enrollment in each Concurrency Service Area (CSA) according to a financially feasible plan for the District. The school utilization must not exceed the adopted LOS by students generated from new developments. The School District's LOS standard is calculated based on permanent student stations, as defined by the Florida Inventory of School Houses (FISH) and is applied to each school of the

four types of schools: elementary, middle, jr/sr high and high schools. The Level of Service (LOS) standards, which are adopted in the amended Interlocal Agreement (ILA) and applied in each CSA, are used to establish the maximum permissible school utilization rate relative to capacity. The LOS standard for Brevard Schools, which apply at the school level, is 100% of permanent FISH capacity for all schools of each type by the year 2011-2012.

The LOS standard is based on permanent capacity within a CSA as defined by FISH for two reasons. First, FISH permanent capacity is the measurement that the Board has utilized over the years to indicate the available capacity at area schools. Each year after the fall student count, a utilization report is produced which indicates the school enrollment at each school, FISH capacity and the percentage each school is over or under the FISH capacity. This is the basis for the School Board's adopted five year capital plans and any new capacity projects which may need to be funded if other means of balancing utilization of schools are not available. Upon the adoption and implementation of school concurrency, the School District's school utilization report will be used to provide recommendations for the evaluation of residential development proposals pursuant to the Interlocal Agreement amended for School Concurrency (ILA).

Second, FISH capacity is generated by the Florida Department of Education (DOE) and is the accepted capacity calculation based on design, though not always reflective of how schools are used based on the programs offered at a school. The FISH measurement provides a basis for capacity that is generally recognized by the local governments and development communities at this time.

School concurrency requires a review of proposed residential developments to confirm that student stations will be available to serve the students generated by the development at the time the student impact will occur. This review first considers capacity in the Concurrency Service Area (CSA) of the proposed residential development, and it includes a review of adjacent CSA's for capacity if none exists in the directly affected CSA. The use of adjacency requires the School District to maximize utilization of schools to the greatest extent possible to ensure that the utilization of two adjacent schools is not disparate. School Districts can maximize utilization through school attendance zone adjustments, changes in school programs, building new schools, or providing additional capacity at existing schools.

School concurrency management then requires that residential development projects not be approved if sufficient capacity at the designated level of service is not available to serve the project. If a proposed development fails the school concurrency test due to lack of sufficient capacity, and there is no adjacent capacity, the development may seek options to provide for the necessary school capacity through mitigation.

Levels of service standards for public school facilities serve several purposes:

- To guide long range projections of school facility needs;

- To assist with the determination of school facility needs over the five year capital improvement element time frame; and,

- To establish a basis for the review of petitions for final subdivisions and site plans for residential development.

The Florida Legislature recognized that the premise of concurrency is that public facilities will be provided to achieve and maintain the adopted standards *[Section 163.3180(13)(d), F.S.].* Therefore, *w*hen considering the school concurrency LOS standard to be set, future student enrollments and capacity measurement, and the School Board's financial capability for capital projects must be taken into consideration. In addition, Section 163.3180(13)(b) 3., F.S. provides authorization for tiered level of service standards; this recognizes that in some rapidly growing counties there is a severe backlog of public school capacity and that meeting those needs may take time to achieve while maintaining an adequate and desirable level of service over the planning period.

The school concurrency legislation, *Section 163.3180(13)(b), Florida Statutes*, contains three provisions regarding level of service standards for the purposes of school concurrency:

- Level-of-service standards must be established jointly in the interlocal agreement by the School Board and local governments within the County, they must be adequate, and they must be based on data and analysis.

- Public school level-of-service standards are to be adopted by the local governments into the Public School Facilities and Capital Improvements Elements of the comprehensive plan and are to be applied district-wide to all schools of the same type. Types of schools may include elementary, middle, and high schools as well as special purpose facilities such as magnet schools. Levels of service may differ between types of schools.

- As an option, the law permits local governments to utilize tiered level-of-service standards to allow time to achieve an adequate and desirable level of service on a system-wide basis or utilize a long-term concurrency management system for specifically defined districts where significant backlogs exist.

**5. DCA Level of Service Report**

In 2006, DCA prepared a Level of Service Report and these guidelines for school concurrency systems were used in the preparation of this data and analysis report. The DCA report outlined a basic set of documents needed to create meaningful, predictable and consistent comprehensive plan documents that would form the basis for each local government to create codes in their Land Development Regulations to enact school concurrency. This report was used in Brevard County to assist in preparation of the comprehensive plan amendments, and the revised interlocal agreement.

**6. An Analysis of Existing and Projected Student Enrollment**

An analysis of existing and projected enrollment, capacity and utilization of the existing

and future public schools in Brevard County has been performed to identify surpluses and deficiencies in capacity (student stations) by school and by school type. This analysis established a base that helped develop the level of service standard for schools. With areas deficient in capacity identified, a determination of the financial cost to add additional capacity to correct the deficiency and/or student boundary adjustments to areas with surpluses can be made.

Table 11**:** *Brevard County Public Schools Utilization 2007-08 to 2011-12* below shows the result of this analysis. As of 2007-08, there are twenty-two (22) schools in Brevard County with an LOS greater than 100 percent. The majority of these schools (12) are elementary schools. The Utilization Table shows that the School District will meet its adopted LOS at the end of the planning period using a Tiered Level of Service discussed in the following section.

Note that new capacity is in place at several existing high schools in years 2008-09 and 2009-10, and high school "CCC" will open for school year 2009-10. This additional capacity will resolve LOS issues at the high school level. However, the ability to conduct student attendance area adjustments will allow the District to achieve and maintain an adopted Level of Service in the elementary, middle and Jr./Sr. high schools. The School Board, recognizing the need to define criteria for the implementation of strategies to meet the Level of Service requirements established by the Board and contained in the Interlocal Agreement for Public School Facility Planning and School Concurrency (part of the 2005 Growth Management Legislation), established a School Board Policy (Appendix D) to permit adjustments to ensure maximum utilization.

**Table 11-Brevard County Public School Utilization 2007-08 to 2011-2012**

# Brevard County Public Schools Utilization 2007-08 to 2011-12

Financially Feasible Plan Incorporating Growth Projections, New Schools, New Additions and Redistricting / Busing

| | | | | | |
|---|---|---|---|---|---|
| Maximum Utilization Elementary Schools: | 127% | 129% | 111% | 103% | 99% |
| Maximum Utilization Middle Schools: | 122% | 119% | 94% | 97% | 97% |
| Maximum Utilization Jr / Sr High Schools: | 133% | 131% | 105% | 102% | 98% |
| Maximum Utilization High Schools: | 139% | 128% | 111% | 98% | 92% |

| School | School Year 2007-08 | | | School Year 2008-09 | | | School Year 2009-10 | | | School Year 2010-11 | | | School Year 2011-12 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | FISH Capacity | 10/15/07 Member-ship | Perm. Capacity Utilization | FISH Capacity | Adjusted Student Projection | Perm. Capacity Utilization | FISH Capacity | Adjusted Student Projection | Perm. Capacity Utilization | FISH Capacity | Adjusted Student Projection | Perm. Capacity Utilization | FISH Capacity | Adjusted Student Projection | Perm. Capacity Utilization |
| **Elementary School Concurrency Service Areas** | | | | | | | | | | | | | | | |
| Allen | 634 | 768 | 121% | 634 | 737 | 116% | 634 | 653 | 103% | 634 | 637 | 100% | 634 | 630 | 99% |
| Andersen | 800 | 640 | 80% | 800 | 667 | 83% | 800 | 726 | 91% | 800 | 749 | 94% | 800 | 778 | 97% |
| Apollo | 910 | 722 | 79% | 910 | 731 | 80% | 910 | 749 | 82% | 910 | 841 | 92% | 910 | 838 | 92% |
| Atlantis | 714 | 765 | 107% | 714 | 751 | 105% | 714 | 685 | 96% | 714 | 616 | 86% | 714 | 620 | 87% |
| Audubon | 754 | 635 | 84% | 754 | 602 | 80% | 754 | 569 | 75% | 754 | 544 | 72% | 754 | 541 | 72% |
| Cambridge | 627 | 502 | 80% | 627 | 517 | 82% | 627 | 542 | 86% | 627 | 562 | 90% | 627 | 595 | 95% |
| Cape View | 591 | 376 | 64% | 591 | 374 | 63% | 591 | 375 | 63% | 591 | 382 | 65% | 591 | 393 | 66% |
| Carroll | 762 | 845 | 111% | 762 | 816 | 107% | 762 | 747 | 98% | 762 | 705 | 93% | 762 | 708 | 93% |
| Challenger 7 | 578 | 494 | 85% | 578 | 508 | 88% | 578 | 550 | 95% | 578 | 554 | 96% | 578 | 554 | 96% |
| Columbia | 707 | 553 | 78% | 707 | 547 | 77% | 707 | 677 | 96% | 707 | 671 | 95% | 707 | 672 | 95% |
| Coquina | 593 | 439 | 74% | 593 | 457 | 77% | 593 | 473 | 80% | 593 | 533 | 90% | 593 | 543 | 92% |
| Creel | 1,148 | 819 | 71% | 1,148 | 827 | 72% | 1,148 | 826 | 72% | 1,148 | 879 | 77% | 1,148 | 901 | 78% |
| Croton | 732 | 537 | 73% | 732 | 548 | 75% | 732 | 619 | 85% | 732 | 631 | 86% | 732 | 654 | 89% |
| Discovery | 848 | 1,031 | 122% | 848 | 1,000 | 118% | 848 | 910 | 107% | 848 | 876 | 103% | 848 | 837 | 99% |
| Endeavour | 898 | 551 | 61% | 898 | 568 | 63% | 898 | 716 | 80% | 898 | 723 | 81% | 898 | 742 | 83% |
| Enterprise | 714 | 904 | 127% | 714 | 861 | 121% | 714 | 794 | 111% | 714 | 736 | 103% | 714 | 706 | 99% |
| Fairglen | 764 | 716 | 94% | 764 | 707 | 93% | 764 | 709 | 93% | 764 | 728 | 95% | 764 | 740 | 97% |
| Gardendale | 703 | 487 | 69% | 703 | 494 | 70% | 703 | 497 | 71% | 703 | 503 | 72% | 703 | 523 | 74% |
| Gemini | 689 | 588 | 85% | 689 | 566 | 82% | 689 | 540 | 78% | 689 | 536 | 78% | 689 | 512 | 74% |
| Golfview | 707 | 635 | 90% | 707 | 651 | 92% | 707 | 654 | 93% | 707 | 665 | 94% | 707 | 687 | 97% |
| Harbor City | 465 | 465 | 100% | 465 | 472 | 102% | 465 | 428 | 92% | 465 | 428 | 92% | 465 | 447 | 96% |
| Holland | 624 | 418 | 67% | 624 | 406 | 65% | 624 | 418 | 67% | 624 | 414 | 66% | 624 | 426 | 68% |
| Imperial Estates | 729 | 682 | 94% | 729 | 693 | 95% | 729 | 681 | 93% | 729 | 689 | 95% | 729 | 699 | 96% |
| Indialantic | 732 | 764 | 104% | 732 | 738 | 101% | 732 | 717 | 98% | 732 | 706 | 96% | 732 | 695 | 95% |
| Jupiter | 810 | 851 | 105% | 810 | 864 | 107% | 810 | 757 | 93% | 810 | 765 | 94% | 810 | 791 | 98% |
| Lockmar | 910 | 713 | 78% | 910 | 729 | 80% | 910 | 834 | 92% | 910 | 866 | 95% | 910 | 886 | 97% |
| Longleaf | 772 | 696 | 90% | 772 | 674 | 87% | 772 | 673 | 87% | 772 | 664 | 86% | 772 | 662 | 86% |
| Manatee | 880 | 827 | 94% | 880 | 811 | 92% | 880 | 821 | 93% | 880 | 789 | 90% | 880 | 806 | 92% |
| McAuliffe | 772 | 920 | 119% | 772 | 936 | 121% | 772 | 753 | 98% | 772 | 742 | 96% | 772 | 761 | 99% |
| Meadowlane Int. | 908 | 519 | 57% | 908 | 515 | 57% | 908 | 693 | 76% | 908 | 683 | 75% | 908 | 709 | 78% |
| Meadowlane Prim. | 842 | 694 | 82% | 842 | 727 | 86% | 842 | 747 | 89% | 842 | 763 | 91% | 842 | 790 | 94% |

# Brevard County Public Schools Utilization 2007-08 to 2011-12

Financially Feasible Plan Incorporating Growth Projections, New Schools, New Additions and Redistricting / Busing

| | | | | | |
|---|---|---|---|---|---|
| Maximum Utilization Elementary Schools: | 127% | 129% | 111% | 103% | 99% |
| Maximum Utilization Middle Schools: | 122% | 119% | 94% | 97% | 97% |
| Maximum Utilization Jr / Sr High Schools: | 133% | 131% | 105% | 102% | 98% |
| Maximum Utilization High Schools: | 139% | 128% | 111% | 98% | 92% |

| | School Year 2007-08 | | | School Year 2008-09 | | | School Year 2009-10 | | | School Year 2010-11 | | | School Year 2011-12 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| School | FISH Capacity | 10/15/07 Member-ship | Perm. Capacity Utilization | FISH Capacity | Adjusted Student Projection | Perm. Capacity Utilization | FISH Capacity | Adjusted Student Projection | Perm. Capacity Utilization | FISH Capacity | Adjusted Student Projection | Perm. Capacity Utilization | FISH Capacity | Adjusted Student Projection | Perm. Capacity Utilization |
| Mila | 817 | 365 | 45% | 817 | 402 | 49% | 817 | 458 | 56% | 817 | 492 | 60% | 817 | 536 | 66% |
| Mims | 707 | 531 | 75% | 707 | 528 | 75% | 707 | 522 | 74% | 707 | 535 | 76% | 707 | 542 | 77% |
| Oak Park | 910 | 750 | 82% | 910 | 757 | 83% | 910 | 747 | 82% | 910 | 739 | 81% | 910 | 743 | 82% |
| Ocean Breeze | 533 | 561 | 105% | 533 | 563 | 106% | 533 | 554 | 104% | 533 | 545 | 102% | 533 | 528 | 99% |
| Palm Bay | 870 | 716 | 82% | 870 | 726 | 83% | 870 | 719 | 83% | 870 | 718 | 83% | 870 | 729 | 84% |
| Pinewood | 505 | 421 | 83% | 505 | 415 | 82% | 505 | 392 | 78% | 505 | 371 | 73% | 505 | 365 | 72% |
| Port Malabar | 790 | 742 | 94% | 790 | 744 | 94% | 790 | 783 | 99% | 790 | 762 | 96% | 790 | 779 | 99% |
| Quest | 910 | 858 | 94% | 910 | 834 | 92% | 910 | 858 | 94% | 910 | 851 | 94% | 910 | 834 | 92% |
| Riverview | 552 | 470 | 85% | 552 | 507 | 92% | 552 | 559 | 101% | 552 | 470 | 85% | 552 | 497 | 90% |
| Riviera | 707 | 564 | 80% | 707 | 597 | 84% | 707 | 575 | 81% | 707 | 620 | 88% | 707 | 652 | 92% |
| Roosevelt | 624 | 462 | 74% | 624 | 465 | 75% | 624 | 479 | 77% | 624 | 492 | 79% | 624 | 507 | 81% |
| Sabal | 719 | 573 | 80% | 719 | 592 | 82% | 719 | 672 | 93% | 719 | 672 | 93% | 719 | 681 | 95% |
| Saturn | 848 | 740 | 87% | 848 | 756 | 89% | 848 | 783 | 92% | 848 | 789 | 93% | 848 | 812 | 96% |
| Sea Park | 475 | 301 | 63% | 475 | 291 | 61% | 475 | 276 | 58% | 475 | 253 | 53% | 475 | 260 | 55% |
| Sherwood | 609 | 638 | 105% | 609 | 635 | 104% | 609 | 638 | 105% | 609 | 597 | 98% | 609 | 592 | 97% |
| South Lake | 533 | 454 | 85% | 533 | 460 | 86% | 533 | 441 | 83% | 533 | 445 | 83% | 533 | 451 | 85% |
| Sunrise | 790 | 726 | 92% | 895 | 735 | 82% | 895 | 737 | 82% | 895 | 741 | 83% | 895 | 813 | 91% |
| Suntree | 714 | 806 | 113% | 714 | 763 | 107% | 714 | 725 | 102% | 714 | 695 | 97% | 714 | 690 | 97% |
| Surfside | 475 | 403 | 85% | 475 | 380 | 80% | 475 | 388 | 82% | 475 | 389 | 82% | 475 | 415 | 87% |
| Tropical | 910 | 760 | 84% | 910 | 737 | 81% | 910 | 707 | 78% | 910 | 698 | 77% | 910 | 694 | 76% |
| Turner | 895 | 765 | 85% | 790 | 775 | 98% | 790 | 759 | 96% | 790 | 756 | 96% | 790 | 777 | 98% |
| University Park | 697 | 553 | 79% | 697 | 555 | 80% | 697 | 578 | 83% | 697 | 595 | 85% | 697 | 629 | 90% |
| Westside | 835 | 825 | 99% | 835 | 821 | 98% | 835 | 825 | 99% | 835 | 843 | 101% | 835 | 804 | 96% |
| Williams | 639 | 812 | 127% | 639 | 822 | 129% | 639 | 608 | 95% | 639 | 610 | 95% | 639 | 630 | 99% |
| **Elementary Totals** | **40,381** | **35,352** | | **40,381** | **35,354** | | **40,381** | **35,316** | | **40,381** | **35,258** | | **40,381** | **35,806** | |

# Brevard County Public Schools Utilization 2007-08 to 2011-12

Financially Feasible Plan Incorporating Growth Projections, New Schools, New Additions and Redistricting / Busing

| | | | | | |
|---|---|---|---|---|---|
| Maximum Utilization Elementary Schools: | 127% | 129% | 111% | 103% | 99% |
| Maximum Utilization Middle Schools: | 122% | 119% | 94% | 97% | 97% |
| Maximum Utilization Jr / Sr High Schools: | 133% | 131% | 105% | 102% | 98% |
| Maximum Utilization High Schools: | 139% | 128% | 111% | 98% | 92% |

| | School Year 2007-08 | | | School Year 2008-09 | | | School Year 2009-10 | | | School Year 2010-11 | | | School Year 2011-12 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| School | FISH Capacity | 10/15/07 Member-ship | Perm. Capacity Utilization | FISH Capacity | Adjusted Student Projection | Perm. Capacity Utilization | FISH Capacity | Adjusted Student Projection | Perm. Capacity Utilization | FISH Capacity | Adjusted Student Projection | Perm. Capacity Utilization | FISH Capacity | Adjusted Student Projection | Perm. Capacity Utilization |
| **Middle School Concurrency Service Areas** | | | | | | | | | | | | | | | |
| Central | 1,524 | 1,003 | 66% | 1,524 | 1,004 | 66% | 1,524 | 1,302 | 85% | 1,524 | 1,309 | 86% | 1,524 | 1,353 | 89% |
| Clearlake | 703 | 418 | 59% | 703 | 441 | 63% | 703 | 422 | 60% | 703 | 394 | 56% | 703 | 410 | 58% |
| Delaura | 922 | 689 | 75% | 922 | 661 | 72% | 922 | 659 | 71% | 922 | 594 | 64% | 922 | 588 | 64% |
| Hoover | 653 | 467 | 72% | 653 | 439 | 67% | 653 | 432 | 66% | 653 | 402 | 62% | 653 | 393 | 60% |
| Jackson | 651 | 656 | 101% | 651 | 601 | 92% | 651 | 597 | 92% | 651 | 598 | 92% | 651 | 632 | 97% |
| Jefferson | 820 | 699 | 85% | 820 | 654 | 80% | 820 | 658 | 80% | 820 | 633 | 77% | 820 | 531 | 65% |
| Johnson | 1,065 | 962 | 90% | 1,065 | 937 | 88% | 1,065 | 915 | 86% | 1,065 | 902 | 85% | 1,065 | 904 | 85% |
| Kennedy | 673 | 636 | 95% | 673 | 621 | 92% | 673 | 630 | 94% | 673 | 651 | 97% | 673 | 653 | 97% |
| Madison | 742 | 660 | 89% | 742 | 578 | 78% | 742 | 692 | 93% | 742 | 699 | 94% | 742 | 666 | 90% |
| McNair | 600 | 572 | 95% | 600 | 565 | 94% | 600 | 563 | 94% | 600 | 561 | 94% | 600 | 564 | 94% |
| Southwest | 1,168 | 1,428 | 122% | 1,168 | 1,390 | 119% | 1,168 | 1,045 | 89% | 1,168 | 1,018 | 87% | 1,168 | 1,035 | 89% |
| Stone | 1,013 | 665 | 66% | 1,013 | 640 | 63% | 1,013 | 676 | 67% | 1,013 | 718 | 71% | 1,013 | 700 | 69% |
| **Middle Totals** | **10,534** | **8,855** | | **10,533** | **8,531** | | **10,534** | **8,591** | | **10,534** | **8,479** | | **10,534** | **8,429** | |
| **Junior / Senior High School Concurrency Service Areas** | | | | | | | | | | | | | | | |
| Cocoa Beach | 1,151 | 1,528 | 133% | 1,151 | 1,507 | 131% | 1,151 | 1,210 | 105% | 1,151 | 1,160 | 101% | 1,151 | 1,118 | 97% |
| Space Coast | 1,715 | 2,161 | 126% | 1,715 | 2,091 | 122% | 1,715 | 1,772 | 103% | 1,715 | 1,752 | 102% | 1,715 | 1,682 | 98% |
| **Jr / Sr High Totals** | **2,866** | **3,689** | | **2,867** | **3,598** | | **2,866** | **2,982** | | **2,866** | **2,912** | | **2,866** | **2,800** | |

# Brevard County Public Schools Utilization 2007-08 to 2011-12

Financially Feasible Plan Incorporating Growth Projections, New Schools, New Additions and Redistricting / Busing

| | | | | | |
|---|---|---|---|---|---|
| Maximum Utilization Elementary Schools: | 127% | 129% | 111% | 103% | 99% |
| Maximum Utilization Middle Schools: | 122% | 119% | 94% | 97% | 97% |
| Maximum Utilization Jr / Sr High Schools: | 133% | 131% | 105% | 102% | 98% |
| Maximum Utilization High Schools: | 139% | 128% | 111% | 98% | 92% |

| | School Year 2007-08 | | | School Year 2008-09 | | | School Year 2009-10 | | | School Year 2010-11 | | | School Year 2011-12 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| School | FISH Capacity | 10/15/07 Member-ship | Perm. Capacity Utilization | FISH Capacity | Adjusted Student Projection | Perm. Capacity Utilization | FISH Capacity | Adjusted Student Projection | Perm. Capacity Utilization | FISH Capacity | Adjusted Student Projection | Perm. Capacity Utilization | FISH Capacity | Adjusted Student Projection | Perm. Capacity Utilization |
| **Senior High School Concurrency Service Areas** | | | | | | | | | | | | | | | |
| Astronaut | 1,441 | 1,382 | 96% | 1,441 | 1,397 | 97% | 1,441 | 1,387 | 96% | 1,441 | 1,317 | 91% | 1,441 | 1,283 | 89% |
| Bayside | 1,976 | 2,752 | 139% | 2,214 | 2,826 | 128% | 2,261 | 2,512 | 111% | 2,261 | 2,214 | 98% | 2,261 | 2,043 | 90% |
| Cocoa | 1,675 | 1,193 | 71% | 1,675 | 1,238 | 74% | 1,675 | 1,247 | 74% | 1,675 | 1,283 | 77% | 1,675 | 1,225 | 73% |
| Eau Gallie | 1,897 | 1,953 | 103% | 1,897 | 1,759 | 93% | 1,897 | 1,726 | 91% | 1,897 | 1,685 | 89% | 1,897 | 1,618 | 85% |
| Melbourne | 2,036 | 2,274 | 112% | 2,179 | 2,238 | 103% | 2,417 | 2,009 | 83% | 2,417 | 1,882 | 78% | 2,417 | 1,738 | 72% |
| Merritt Island | 1,382 | 1,569 | 114% | 1,803 | 1,572 | 87% | 1,803 | 1,547 | 86% | 1,803 | 1,465 | 81% | 1,803 | 1,499 | 83% |
| Palm Bay | 2,466 | 2,529 | 103% | 2,442 | 2,538 | 104% | 2,442 | 2,232 | 91% | 2,442 | 2,016 | 83% | 2,442 | 1,922 | 79% |
| Rockledge | 1,592 | 1,421 | 89% | 1,592 | 1,197 | 75% | 1,592 | 1,144 | 72% | 1,592 | 1,137 | 71% | 1,592 | 1,082 | 68% |
| Satellite | 1,327 | 1,450 | 109% | 1,454 | 1,193 | 82% | 1,454 | 1,276 | 88% | 1,454 | 1,169 | 80% | 1,454 | 1,082 | 74% |
| Titusville | 1,912 | 1,482 | 78% | 1,912 | 1,491 | 78% | 1,912 | 1,649 | 86% | 1,912 | 1,607 | 84% | 1,912 | 1,597 | 84% |
| Viera | 2,146 | 1,424 | 66% | 2,146 | 1,989 | 93% | 2,146 | 1,946 | 91% | 2,146 | 1,926 | 90% | 2,146 | 1,974 | 92% |
| High "CCC" | | | | | | | 2,216 | 900 | 41% | 2,216 | 1,350 | 61% | 2,216 | 1,800 | 81% |
| **High Totals** | **19,850** | **19,429** | | **20,756** | **19,438** | | **23,256** | **19,575** | | **23,256** | **19,051** | | **23,256** | **18,863** | |
| **Schools of Choice That Do Not Have Boundaries** | | | | | | | | | | | | | | | |
| Freedom 7 | 453 | 412 | 91% | 453 | 412 | 91% | 453 | 412 | 91% | 453 | 412 | 91% | 453 | 412 | 91% |
| Stevenson | 573 | 427 | 75% | 573 | 427 | 75% | 573 | 427 | 75% | 573 | 427 | 75% | 573 | 427 | 75% |
| West Melbourne | 551 | 414 | 75% | 551 | 414 | 75% | 551 | 414 | 75% | 551 | 414 | 75% | 551 | 414 | 75% |
| Edgewood | 951 | 946 | 99% | 951 | 946 | 99% | 951 | 946 | 99% | 951 | 946 | 99% | 951 | 946 | 99% |
| West Shore | 1,033 | 955 | 92% | 1,033 | 955 | 92% | 1,033 | 955 | 92% | 1,033 | 955 | 92% | 1,033 | 955 | 92% |
| **Schools of Choice** | **3,561** | **3,154** | | **3,562** | **3,154** | | **3,561** | **3,154** | | **3,561** | **3,154** | | **3,561** | **3,154** | |
| **Brevard Totals** | **77,192** | **70,479** | | **78,097** | **70,075** | | **80,598** | **69,618** | | **80,598** | **68,854** | | **80,598** | **69,052** | |

## 7. Tiered LOS

Through the introduction of a tiered level of service, the deficiencies in capacity can be addressed over the planning period to allow the School District adequate time to build additional capacity and make necessary boundary or program adjustments. Based on establishing the LOS standard of 100% per Concurrency Service Area (CSA) for each school type and the projected enrollment by school through school year 2011-12, all of the schools in Brevard County will be able to meet the 100 percent LOS by 2011-12.

The Level of Service (LOS) standards, which are adopted in the amended Interlocal Agreement (ILA), are used to establish the maximum permissible school utilization rate relative to capacity. An essential component of determining the LOS for schools is the School District's ability to adopt a financially feasible capital program that can achieve and maintain the adopted LOS for public schools. Boundary changes, program shifts, and new or expanded school facilities must be built in time to handle the additional students that will come from new residential developments as those developments come on line. If sufficient school capacity does not exist in the CSA of a proposed residential development or its adjacent CSA then that new development may be required to mitigate its impacts or not build.

The Florida Statutes require that school concurrency must provide how the LOS standards will be achieved and maintained. The ability to achieve and maintain the LOS must be based on a financially feasible Five-Year Capital Plan, adopted annually by the School Board as prescribed in Chapter 163.3180(13)(d)(1), F.S. The LOS standards for schools will be adopted into the Capital Improvement Element (CIE) of the local governments' comprehensive plans and must apply district-wide for all schools of the same type.

Currently schools are operating at an average level of service of 91 percent with twenty-two schools operating above the 100 percent level of service. This includes twelve elementary schools, two middle schools, two Junior/Senior high schools and six high schools. With boundary adjustments, program changes, and/or the additional capacity projects identified in the proposed five-year capital plan, the number of schools utilized over 100 percent will be reduced to 100% by 2011-12.

Based on the information provided above, it is recommended that Brevard County Schools adopt, achieve and maintain a level of service standard of 100 percent of permanent FISH capacity. To achieve 100 percent LOS and remain financially feasible, the use of a tiered LOS will be required initially for a period of time in order for the twenty-two schools to have their utilization maximized with other schools with lower levels of service.

Upon achieving the LOS of 100 percent of permanent FISH capacity in 2011-12, the tiered LOS will be terminated. The Tiered Level of Service shall be as shown in Table 12.

**Table 12-Tiered Level of Service**

| TIERED LEVEL OF SERVICE - SCHOOL YEARS 2007-08 to 2011-12 | | | | | |
|---|---|---|---|---|---|
| **Facility Type** | **2007-08** | **2008-09** | **2009-10** | **2010-11** | **2011-12** |
| Elementary Schools | 127% | 130% | 115% | 105% | **100%** |
| Middle Schools | 122% | 120% | **100%** | **100%** | **100%** |
| Junior / Senior High Schools | 133% | 135% | 110% | 105% | **100%** |
| High Schools | 139% | 130% | 115% | **100%** | **100%** |

## 8. Board Policy 7120 - Criteria for Balancing School Membership to Capacity

The School District also recognized that in order to implement some of the strategies necessary to meet the Level of Service requirements established herein, and included in the Interlocal Agreement, the School Board of Brevard County must address the balancing of enrollments through attendance redistricting. The School Board instituted Policy 7120 “Criteria for Balancing School Membership to Capacity” which provides criteria for balancing enrollments. The entire policy is included in Appendix D.

## 9. School Concurrency Service Areas

The School Concurrency Service Areas (SCSA) are geographic areas in which the level of service is measured when an application for residential development is reviewed for school concurrency purposes. A fundamental requirement of school concurrency is the establishment of these areas. These SCSAs are used to determine whether adequate capacity is available to accommodate new students generated from residential development.

Brevard County School District currently operates eighty-five (85) schools. Using capacity as established by the Florida Inventory of School Houses (FISH), the majority of Brevard District schools operate at or below 100 percent of capacity. Schools that are operating above 100 percent of permanent FISH capacity have some form of relief planned within the current five year planning period.

Brevard School District and Brevard County local governments have agreed to apply school concurrency on a less than district-wide basis and use school attendance areas (boundaries) as the SCSAs. Utilization of this method will create separate concurrency service area boundary maps for elementary, middle, Jr./Sr. and high schools. Each school will be its own CSA. Existing school attendance zones will remain the CSA for measuring level of service for each school.

As the CSA allows the impact of new residential development to be analyzed against the directly impacted schools, the review for available capacity will occur at the schools most likely to be impacted by the new residential development. If available capacity is not present, the adjacent school will be analyzed for capacity, lessening the burden on the School District to make significant boundary changes or program adjustments to accommodate the additional students.

Figures 6, 7, and 8 below, detail the school concurrency service area boundaries for the elementary, middle, Jr./Sr. high and high school grade levels, respectively.

**Figure 6-Elementary School Concurrency Service Areas CSA**

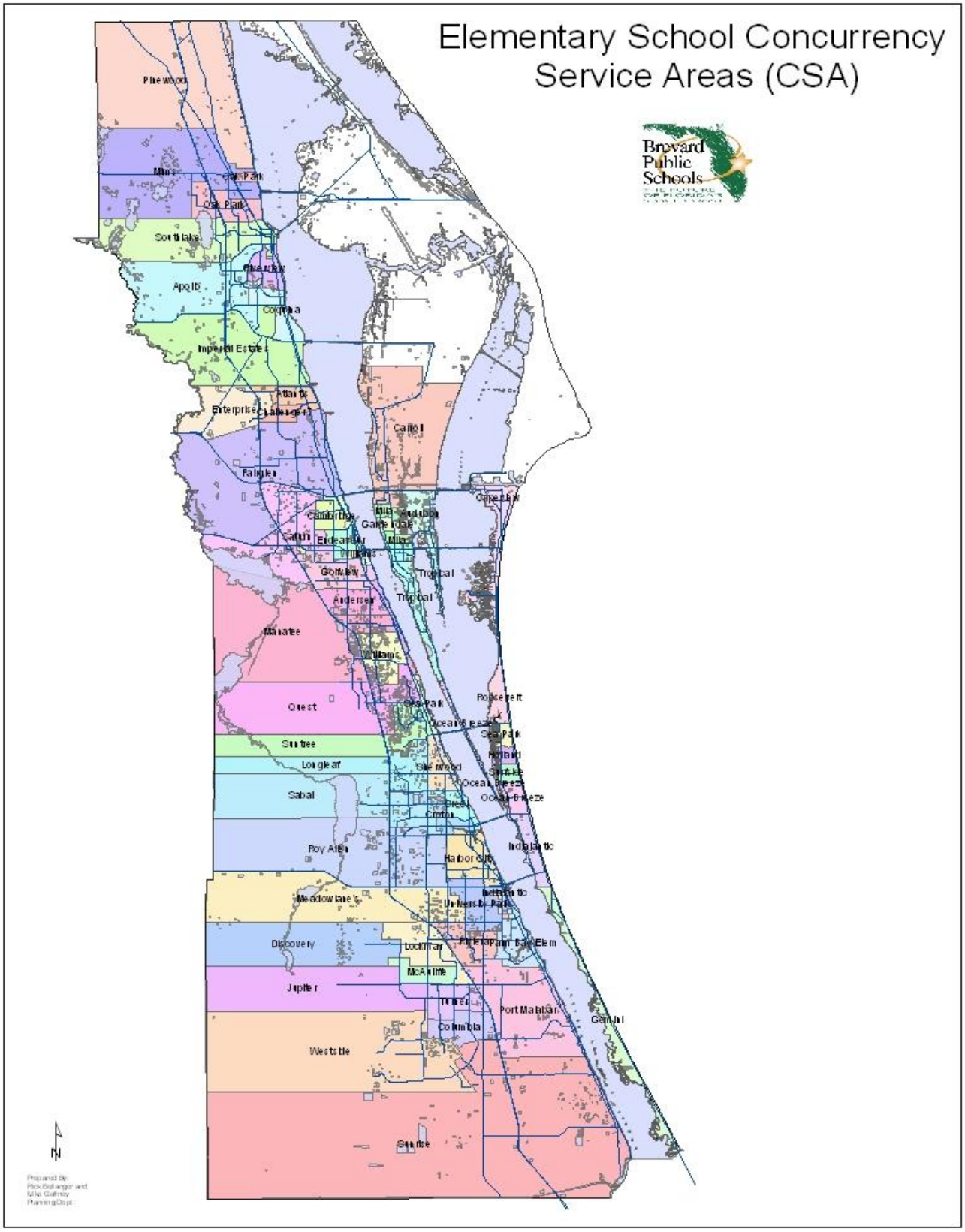


**Figure 7-Middle and Jr/Sr High School CSA**

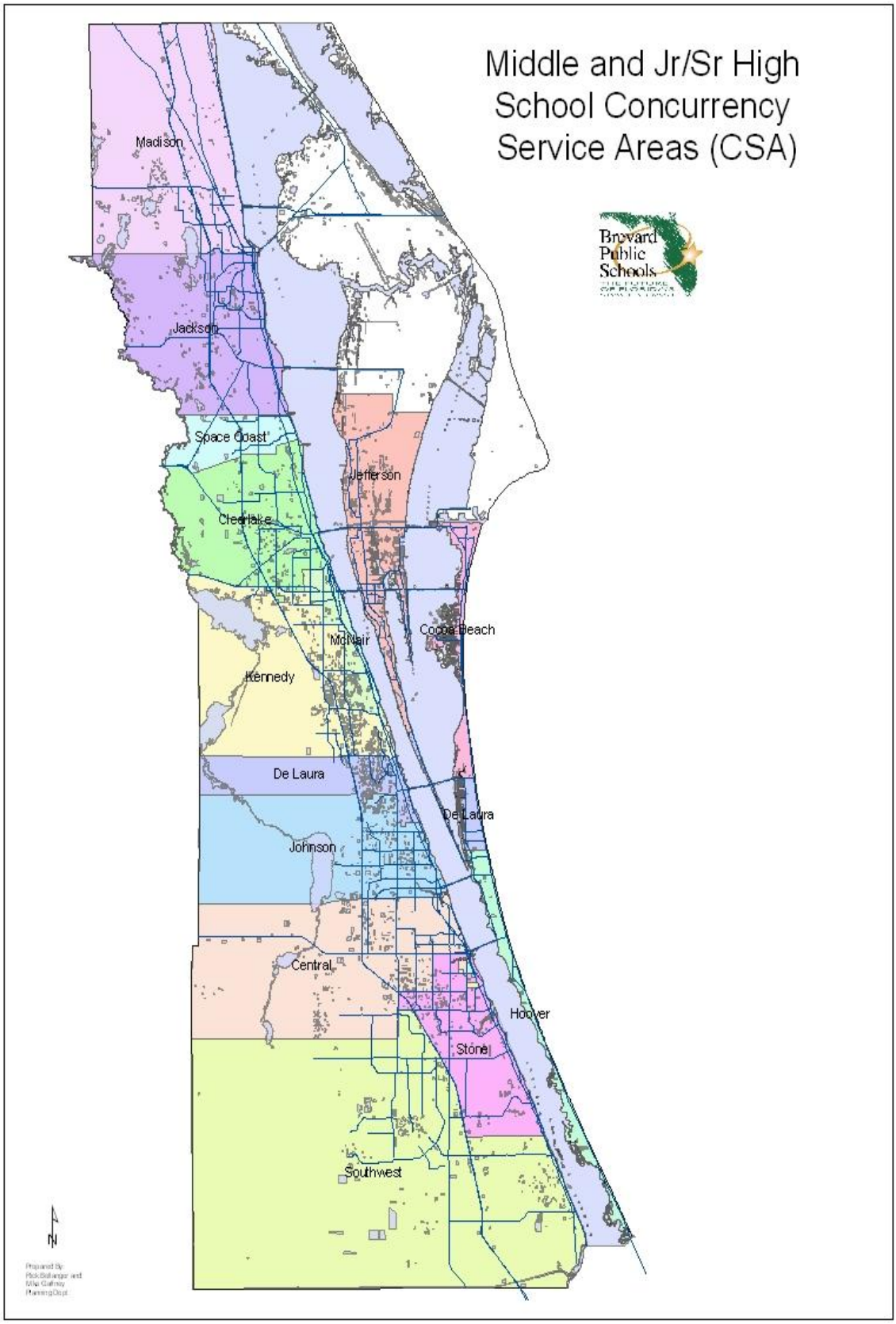
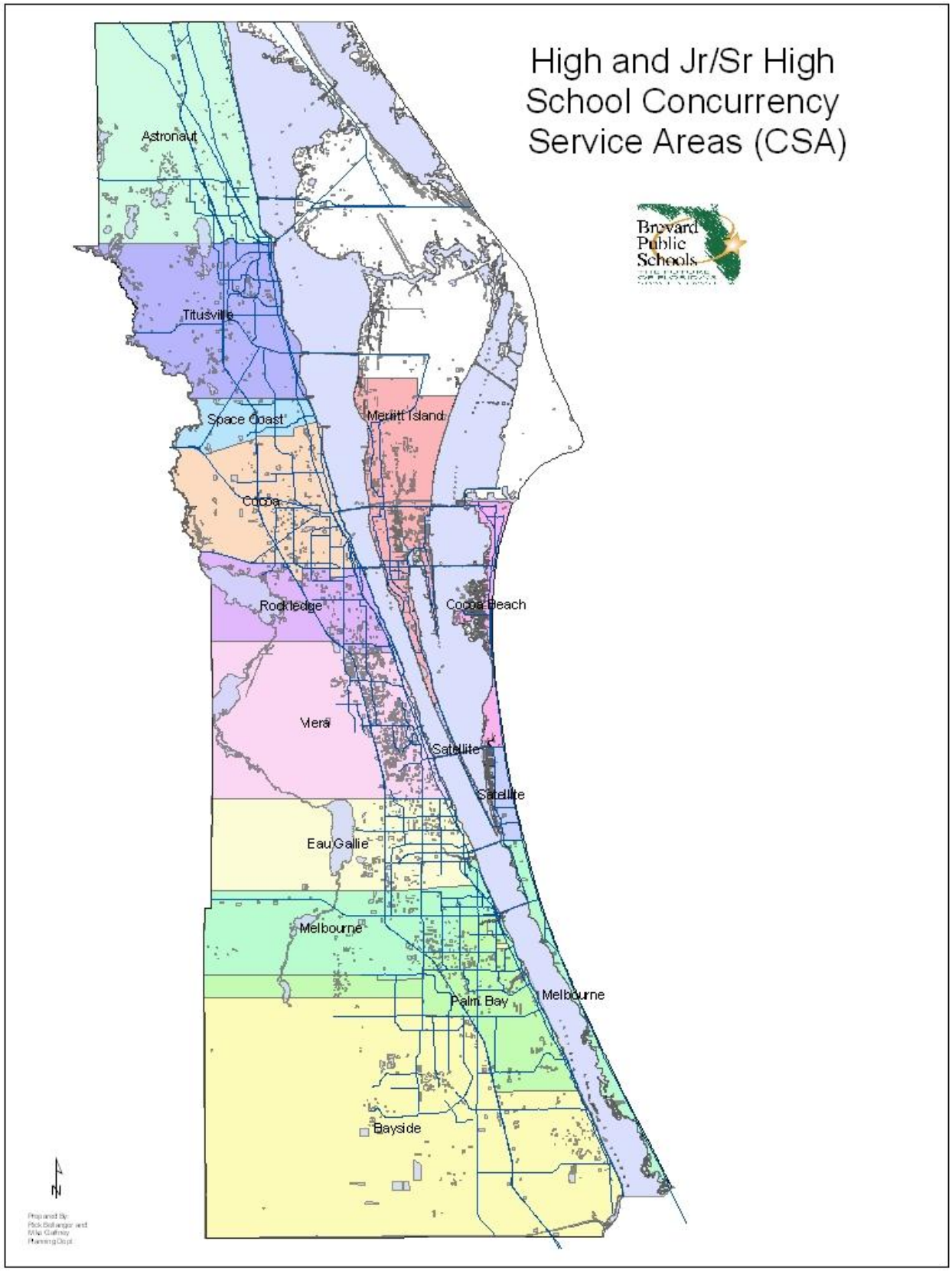


**Figure 8-High and Jr/Sr High School CSA**



## E. SCHOOL DISTRICT CAPITAL IMPROVEMENTS AND REVENUE SOURCES

### 1. School District Financial Feasibility

School concurrency requires the School Board to adopt a financially feasible five-year capital facilities plan (Attachment C) and annually update it to provide enough capacity meet the adopted LOS standard for each CSA. The Five-Year Capital Facilities Plan, which is annually updated to add an additional year and adopted, details the capital improvements needed and funding revenues available to maintain the adopted level of service.

The School District assesses its projected growth in students and determines its student capacity project needs in consideration of its responsibility to adopt a financially feasible capital plan for the five year planning period. As previously demonstrated, the School District will continue to experience student growth at a slower rate. The review of current costs per student station and current and future revenue streams is critical for a financially feasible plan. At the same time the District must pay close attention to the cost per student station limits imposed by the Department of Education.

The following section “Student Station Costs” is representative of the analysis that is performed in determining the cost factor student station at a given point in time. This information, directly from the 2004 Impact Fee Study Report prepared by TIndale–Oliver & Associates, demonstrates the analysis to assess and forecast costs per student station.

### 2. Student Station Costs

The 2004 Impact Fee Report prepared by Tindale-Oliver and Associates, Inc. (Attachment D) shows the total costs by school type are based on both capital building and land costs, where available, and were provided to reflect typical capital costs for the land and construction costs for new schools in Brevard County. Data in Table 13 are based on the actual total costs for prototype elementary, middle, and high schools built and opened from 1995-2003, in Brevard County. The cost factors for new schools are updated every year as construction costs and land prices rise.

**Table 13-School Facility Costs**

| ***Cost Factors*** | ***Manatee Elementary*** | ***Longleaf Elementary*** | ***Central Middle*** | ***Bayside High*** |
|---|---|---|---|---|
| Facility Built | August 2003 | August 1996 | August 1995 | August 1997 |
| Actual Construction Cost | $11,327,615 | $8,822,856 | $20,294,627 | $36,735,785 |
| Inflation Rate (construction) [1] | 1.0060 | 1.1805 | 1.2145 | 1.1549 |
| Inflated Construction Cost | $11,395,581 | $10,415,382 | $24,647,824 | $42,426,158 |
| Actual Land Cost | N/A | $620,548 | N/A | $613,054 |
| Inflation Rate (land) [2] | N/A | 1.4070 | N/A | 1.384 |
| Inflated Land Cost | N/A | $873,111 | N/A | $848,467 |
| Total Inflated Cost | $11,395,581 | $11,288,493 | $24,647,824 | $43,274,625 |
| Total Cost by School Type | **$22,684,074** | | **$24,647,824** | **$43,274,625** |

**Figures may not add due to rounding.*
*Notes:*
*(1) Inflation rate for construction of school facility is based on Florida Student Station Cost Factors.*
*(2)The inflation rate for land is based on percentage change in property values from the Brevard County 2001-02 Budget Summary.*

Based on the Table above costs per student station were calculated and shown in Table 14 below. This Table demonstrates that the costs per student station for the three school types used in this report are conservative for Brevard County, and only represent the costs as they were in the year of construction.

**Table 14-Cost per Student Station by School Type**

| ***Cost Component*** | ***Elementary*** | ***Middle****(2)* | ***High*** | ***Total*** |
|---|---|---|---|---|
| School Building(1) | $21,810,963 | $24,647,824 | $42,426,158 | **$88,884,945** |
| Land | $873,111 | $0 | $848,241 | **$1,721,352** |
| Total | $22,684,074 | $24,647,824 | $43,274,625 | **$90,606,297** |
| Student Stations | 1,885 | 1,899 | 2,484 | **6,268** |
| Cost per Student Station | $12,033.99 | $12,979.37 | $17,421.35 | **$14,455.38** |

*Source: Dane G. Theodore, AIA, Brevard School District architect, October 24, 2003.*
*Notes:*
*(1) Construction costs inflated according to the CPI from the month and year facility was opened until December 2003.*
*(2) Land was not required for construction of middle school.*

The Impact Fee Report provides that the five-year annual average of total enrolled students from the 2003-03 to 2006-07 school years is used to weight the average cost per student by school type.

Included in capital costs are the costs associated with school buses and school bus compound needs. These are considered separate costs above and beyond school facility costs. The five-year annual average of total enrolled students is used to calculate the school bus cost per student, is added to the impact cost per student. It should be noted that only the school bus cost used to accommodate *new* students is used in the calculation of the school bus cost per student.

School bus costs towards replacing existing buses are not used in the impact fee calculation, but must come from other capital sources.

The cost of debt for school buildings is also added to the impact cost. This is based on the present value interest of the current debt, including Certificates of Participation, per student. Present value of interest is based on 5.0 percent debt over a 20-year time period. The result is the impact cost per student considering construction costs per new student station. The present value interest of the debt cost is added to the cost per student to calculate the total impact cost per student. The items discussed in this section, as well as the resulting total impact cost per student, are included in Table 15.

**Table 15-Total Impact Cost per Student**

| ***Impact Cost Per Student Station*** | | | | |
|---|---|---|---|---|
| ***Calculation Step*** | ***Elementary*** | ***Middle*** | ***High*** | ***Total*** |
| Cost Per Student Station | $12,033.99 | $12,979.37 | $17,421.35 | $14,455.38 |
| Utilization Rate | 0.85 | 0.85 | 1.02 | |
| Students five-year average[1] | 35,442 | 9,286 | 23,792 | 68,520 |
| Student Distribution[1] | 51.7% | 13.6% | 34.7% | |
| Weighted Cost Per Student Station | $14,157.64 | $15,269.85 | $17,079.75 | $15,323.00 |
| | | | | |
| Total Bus Cost | | | | $2,756,670 |
| Bus Impact Cost Per Student | | | | $40.23 |
| Impact Cost Per Student | | | | $15,363.23 |
| Debt Cost Per Student | | | | |
| Total Debt, from Work Plan | | | | $51,111,955 |
| Amount Financed Per Student | | | | $745.94 |
| Bond Yield Rate | | | | 5.0% |
| Interest | | | | $37.30 |
| Capitalization Period, Years | | | | 20 |
| Present Value Interest | | | | $464.80 |
| **Total Impact Cost Per Student** | | | | **$15,828.03** |

*Source: Prepared for the 2004 Impact Fee Study for School District of Brevard County, October 24, 2003 and January 26, 2004.*
*Notes:*
*(1) Total student enrollment for the 2002-03 to 2006-07 school years is used to calculate the five-year average of total enrolled students.*
*(2) School Bus Cost is based on $61,765 per bus for 380 buses and $1,024,000 per bus compound for 4 bus compounds. 10 percent of total estimated school bus costs were used to estimate bus costs for new students.*

### 3. School District Revenue/Funding Sources for Capital Improvement

As structured, the public school system consists of students, personnel, schools, and administrative facilities. Residential development impacts the students and school facilities because increases in new student enrollment can place demands on school capacity and cause overcrowding of facilities. Therefore, an

accurate inventory of both current and projected school capacity and student enrollment is crucial for school capital planning.

**4. School District Revenue Sources**

The school concurrency program requires identification/assessment of state and local revenue sources and funding mechanisms available for school capital improvement financing for the five (5) year planning period for financial feasibility and long range planning period including:

- Projection of property tax base
- Assessment ratio and millage rate (two mills levy)
- Additional revenue sources (impact fees, recurring state revenues, etc.)
- Projection of debt capacity
- Projections of debt service obligations for currently outstanding bond issues

**5. Recurring State Revenues**

The Florida State Constitution authorizes two sources of revenue for school districts to be used for State specified needs: Public Education Capital Outlay (PECO) and Capital Outlay and Debt Service (CO & DS). The PECO funds are generated through a 2.5 percent tax imposed on the gross receipts of sellers of electricity, natural or manufactured gas, and telecommunication services in the State. The CO & DS revenues are generated from the licensing of motor vehicles and motor homes and are also used for capital renovation and expansion projects for public education facilities. In Brevard County, the majority of the PECO and CO & DS funds are used for renovation and remodeling of existing public school facilities. Since these funds are not used to provide new student stations, they are not included in the State credit calculations. Based on historical trends for the 5 year period from 1999 to 2003, the total projected PECO and CO & DS revenues utilized for new construction were $1,413,265 (*Source: Impact Fee Report*).

Further, the PECO and CO & DS funding for new student stations in the School Board's 5 Year CIP Plan from 2003 to 2007 is zero. In order to provide a conservative state credit calculation, the historical trend for the last five years, as discussed above, is used in the credit calculation. Thus, the 5-year annual PECO and CO & DS funds of $1,413,265 are divided by the 5,931 student stations expected to be constructed according to the School Board's Five-Year Capital Plan 2003 to 2007. Table 16 presents the results of the projected state revenue per student. The 5,931 student stations reflect the number of stations projected to be needed in order to maintain the average current utilization rates or level of service. (*Source: Impact Fee Report*)

**Table 16-State Revenue Credits (2003-2007)**

| ***State Revenue Credits*** | ***Revenue (5-Year)*** |
|---|---|
| PECO and CO&DS funds | $1,413,265 |
| Projected Student Stations | 5,931 |
| Total State Revenue per Student | $238.28 |

*(1) PECO, CO & DS revenues are from the 5 year period 1999 to 2003 (Dane G.Theodore, AIA, Architect for the School District of Brevard County, January 26, 2004).*

*(2) 5,931 student stations expected to be constructed according to the School Board Five-Year Work Plan, 2003 to 2007.*

Another revenue source is the credit for local revenues which include taxes on the sale of property. This revenue may be used for capital facility expansion purposes. Table 17 below shows how much per student is estimated based on the projected growth of 5,931 students, according to the School Board's Five-Year Work Plan 2003 to 2007.

**Table 17-Local Revenue Credits per Student**

| ***Local Revenue Credits*** | ***Per Student*** |
|---|---|
| Property Sales, Food Service Transfer | $1,000,000 |
| Projected Student Stations | 5,931 |
| Total Property Sale Proceeds per Student | $168.61 |

*(1) Property sales and food service transfer revenues are estimated in the School Board Five-Year Work Plan 2003 to 2007.*

## 6. Recurring Local Revenues

The 2-mill ad valorem tax levied by the School Board generates revenues used for both capital renovation and capital expansion. Revenue projections used in this five-year School Board Work Plan for the 2-mill ad valorem tax were based on an annual increase of 2.5 percent per year. However, recent revenue trends indicate that 6.0 percent annual increase revenue is more appropriate. Given this assumption, the amount of revenue available for capital based on the 35.4 percent ratio calculated above was adjusted to $74.7 million.

A review of historic trends from 1999 to 2003 indicates that debt service paid on Certificates of Participation (paid by the 2-mill tax) total $57.2 million. Since the adjusted five-year total revenue for 2003 to 2007 for new construction ($74.7 million) is greater than the five-year period from 1999 to 2003 ($57.2 million), it will be used to develop the 2-mill ad valorem tax credit. This will provide a conservative estimate of the credit amount from the 2-mill ad valorem tax. This calculation is made by dividing the average annual amount of the 2-mill ad valorem tax used for new construction or to pay debt service by the average

number of students expected to utilize public school facilities during the 2003 to 2007 time period. This results in average 2-mill revenue per student. The present value of this annual revenue per student is based on a bond yield rate of 5.0 percent over a 20-year time period. See Table 18 below.

**Table 18-2-mill Debt Service Revenue Credit**

| ***2-mill Debt Service Factors*** | ***Revenue*** |
|---|---|
| Adjusted average annual five-year projected 2-mill Revenues, based on a 6 percent annual increase. | $42,157,554 |
| Percent of five-year 2-mill revenue used for capital expansion[1]. | 35.4% |
| Five-year 2-mill revenue used for capital expansion | $14,936,964 |
| Number of Students, 5-Year Avg. | 68,438 |
| 2-mill Annual Revenue Per Student | $218.26 |
| Bond Yield rate | 5.0% |
| Capitalization Period, Years | 20 |
| Present Value Annual 2-mill Revenue per Student | $2,720.00 |
| *(1) Based on the School Board's Five-Year Work Plan, 2003 to 2007, approximately 35.4 percent of the five-year average of 2-mill revenues is used for the expansion of student stations (Dane G. Theodore, AIA, Architect for the School District of Brevard County, January 26, 2004).* | |

A summary of all revenue credits and the resulting net impact cost per student is provided in Table 19.

**Table 19-Summary of Revenue Credits and Net Impact Cost**

| **Total Cost per Student *** | **$15,828.03** |
|---|---|
| State Revenue Credit | $238.28 |
| Local Revenue Credit | $168.61 |
| 2-mill Debt Service Revenue Credit | $2,720.00 |
| *Total Revenue Credit* | **$3,126.89** |
| Net Cost per Student (less above credits) | $12,701.14 |
| *Source: 2004 Impact Fee Study, Tindale-Oliver and Assoc.,Inc*<br>**Based on the School Board's Five-Year Work Plan, 2003 to 2007* | |

While the above analysis, excerpted directly from the 2004 Impact Fee Study, provides the methodology to calculate cost per student station, the DOE provides and updates costs per station that limit the expenditures by the District. It is often these values that are utilized in computations for additional capacities.

## 7. The School District's Five-Year Capital Facilities Plan

The Capital Plan is developed to provide funding to build new capacity as needed to meet the projected student growth. It must address updating schools on a systematic schedule to meet educational needs, and provide funding for maintenance and system renovation to ensure that facilities function safely. As structured, the *School District's Five-Year Capital Facilities Plan* identifies the School District's capital needs based on current costs per student station and projected growth to meet the capacity needs to address facility improvements and long-range capacity requirements. The School District's Capital Plan is developed with an annual 5–year adoption to develop a long-range financially feasible plan.

An assessment of the ability to finance capital improvements is based upon the projected enrollment and state and local revenues during the five-year planning period; the forecasting of expenditures for five years; the projections of other revenue sources such as impact and user fees; and projection of facilities cost considerations. The District's Five-Year Facilities Work Program (Attachment C) provides information regarding the ability to fund capital projects to meet the anticipated capacity needs through the 2011/12 school year. Tables 22 and 23 are replaced with updated figures in Attachment C.

The School Concurrency mandate requires that the School District annually update and adopt a Plan that contains sufficient capacity to meet the anticipated demand for student stations, ensuring that no schools exceed their adopted level of service for the five year period.
While the five-year capital plan must be adopted into the Capital Improvements Element of the local governments' Comprehensive Plans, the school district's capital improvements program does not require county or city funding.

The School District has provided an assessment of the ability to finance capital improvements based upon the revised projected enrollment and revenues during the five-year planning period. These are summarized as follows:

- Forecast of revenues and expenditures for five years. This information is provided in Attachment C. Revenues are summarized on page 9 of 24, while capacity projects are listed on pages 10 and 11 of 24.
- Projection of debt service obligations for currently outstanding bond issues - located in Attachment C – Page 5 of 24.
- Projection of facilities operating costs – located in new Appendix B
- Projection of debt capacity - located in Appendix C
- Projection of other tax bases and other revenue sources, such as, impact and user fees – located in Attachment C – Page 8 of 24.

## 8. Financial Feasibility and Adopted Level of Service Summary

As required by the state for school concurrency, the School District must

implement a financially feasible Five-Year Capital Facilities Plan that provides for school capacity improvements to accommodate projected student growth. Achieving and maintaining the adopted level of service standard identified for the five-year planning period, and for the end of the long range planning period (ten to twenty years) is based on the identification and assessment of the estimated costs to meet future needs. The School District uses COFTE projections for the State-funded portion of the Five-Year Plan and will use locally-generated funds (School Impact Fees) to meet the projected capital needs to achieve and maintain the financially feasible adopted LOS for students projected above the COFTE forecasts, if any.

Those improvements, which are budgeted and programmed for construction within the first three years of the Plan, are considered committed projects for concurrency purposes. Based upon revised student COFTE projections and relying upon school boundary adjustments to achieve and maintain the adopted level of service within the School District's proposed Five-Year Capital Facilities Plan, the capacity-providing capital improvements have been revised and schools have been rescheduled for the long range planning period. Table 20 below indicates the revised capital projects timing for capacity projected for construction in the ten and twenty year planning period. With coordinated population and student projection planning, boundary adjustments and some capacity added, the school district will achieve and maintain an adopted LOS.

**Table 20-Revised Facilities Work Program Schedule**

| Project | Area | Planned construction date |
|---|---|---|
| New Middle "DD" | I | 2011-12/ 2016-2017 |
| Elementary "U" | III | 2018-19/2026-27 (Long range) |
| Elementary "W" | I | 2018-19/2026-27 (Long range) |
| Elementary "V" | I | 2018-19/2026-27 (Long range) |
| Elementary "X" | IV | 2018-19/2026-27 (Long range) |
| Elementary "Y" | I | 2018-19/2026-27 (Long range) |
| Elementary "Z" | II | 2018-19/2026-27 (Long range) |
| New Middle "EE" | IV | 2018-19/2026-27 (Long range) |
| New Middle "FF" | III | 2018-19/2026-27 (Long range) |
| Elementary "A1" | | Removed from plan |
| Elementary "B1" | | Removed from plan |
| High Schools DDD and EEE | | Removed from plan |
| *Source: Brevard Schools Facilities Department 2008 – revised to reflect COFTE student projections* | | |

## 9. Class Size Reduction Issues

In addition to meeting school concurrency mandates to achieve and maintain an adopted level of service, the need to meet the constitutional requirements of Classroom Size Reduction by 2010 has placed additional financial burdens on the School District. The school district performed an exercise to determine an approximation of the additional classrooms required in 2008 due to the change in

CSR requirement from classroom average to classroom size maximums (without mitigating strategies). The results show at elementary school level a deficit of 172 classrooms or 2,967 seats; at middle schools 60 classrooms or 1320 seats may be needed; and at the high school level 198 classrooms or 4356 seats may be needed. The School District made some assumptions to obtain these numbers based on the CSR implementation rules.

*Assumptions:* Different schools will be overcrowded but new space will have been built, but the fundamental problems and quantities will be similar. A rough estimate of the number of classrooms required by the CSR change to classroom maximums can be done based on 2004-05 student populations, school capacities, core class definitions and course schedules even though all those will change by 2008. Attempting to forecast student population growth, class schedules, and even capacity changes to the year 2008 may introduce more error than it would preclude. Secondary schools are assumed to all be currently fully utilized so that any additional class sections required to meet the final CSR class maximum requirement will require additional classrooms.

*Methodology:* At the elementary school level, a school with portables is considered to be at its effective full capacity regardless of the percentage so additional capacity will have to be added to accommodate the maximum class size rule. A school without portables and sufficiently below full capacity that adding 69 students would not put it above the 100 percent average capacity does not need new classrooms. Elementary schools that need new capacity will need 3.5 additional classrooms each, rounded to 4. Half of the grades will have between 1 and 10 students too many, the other half of the classrooms will have between 1 and 10 students too few. The savings from the grades that are short 1-10 students will not help make room for the grades with 1-10 students too many. Therefore for 7 grades, on the average 3.5 classrooms will be needed, rounded to 4. Class schedules for all the secondary schools were examined. Core courses were identified. For every core class that had more than 22 students at the middle school level and 25 students at the high school level, another classroom period was required. The number of required classroom periods was divided by 4 for the schools on block schedule and by 6 for the schools with one hour class periods to determine the number of classrooms needed per day to accommodate the classroom maximum constraints.

*Caveats:* This exercise was intended as a quick worst-case scenario, not as a formal estimate. A number of mitigating strategies have been assumed, there are several that would reduce the number of classrooms needed which include: putting schools on a split schedule - 6-12 and 12-6 - two schools in one building; a genuine year-round school with 4 school sections and sliding window vacation schedule; mandating that some secondary courses, especially non-core electives, be taken online with Florida High School; reducing the number of secondary non-core elective courses and allowing their class sizes to rise; encouraging more dual enrollment courses; at the elementary level, cap and bus

at the grade level as soon as class size maximums have been reached. The State DOE has suggested these strategies as ways to mitigate the capacity impacts. If these strategies were employed, it may be possible to eliminate the need for any additional classrooms to meet the CSR maximum, but the recommendation would not be popular and possibly not even feasible.

## 10. Financial Summary

With the revision of the student projections triggering an update to the capital plan and the removal of additional capital improvements, the school district will rely on projects already in progress, along with the attendance boundary changes permitted by school board policies to address existing deficiencies and enrollment imbalances and achieve the adopted level of service within the five year period. Table 21 below describes the projected capital costs and the projected revenue for the School District from years 2007-08 through 2011-12.

**Table 21-Projected Capital Costs and Projected Revenue**

| | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 |
|---|---|---|---|---|---|
| **Capital Cost** | $76,365,977 | $12,440,620 | $12,000,000 | $37,313,775 | $13,400,000 |
| **Projected Revenue** | $76,365,977 | $12,440,620 | $12,000,000 | $37,313,775 | $13,400,000 |

## 11. School Planning and Shared Costs

By coordinating the planning of future schools with affected local governments, the school district can better identify the costs associated with site selection and the construction of new schools. Coordinated planning requires the School Board to coordinate school planning with the Capital Outlay Committee (COC) for review. The COC consists of representatives from various government agencies. Prior to the COC review, the affected jurisdiction may coordinate with School District staff to perform its own technical review of the site. This analysis permits the School Board and affected local governments to jointly determine the need for and timing of on-site and off-site improvements necessary to support each new school.

Because Brevard County is undergoing significant infrastructure development, analyzing the infrastructure needs of planned school sites is necessary. With this process, shared funding for capital improvements for school sites can be determined according to the responsibility of each party for each specific school site. Necessary infrastructure coordination may include: potable water lines, sewer lines, drainage systems, roadways including turn lanes, traffic signalization and signage, site lighting, bus stops, and sidewalks. These improvements are assessed at the time of site plan preparation. Approval conditions can cover the timing and responsibility for construction, as well as the operation and maintenance of required on-site and off-site improvements. Any such

improvements should be in keeping with the financially feasible capital plan adopted by the School Board.

Other cost-effective measures should be considered by local governments during the process of formulating neighborhood plans and programs and reviewing large residential projects. During those processes, the County and the cities can encourage developers or property owners to provide the School District with incentives to build schools in their neighborhoods. These incentives may include, but are not be limited to, donation and preparation of site(s), acceptance of stormwater run-off from future school facilities into development project stormwater management systems, reservation or sale of school sites at pre-development prices, construction of new school facilities or renovation of existing school facilities, and provision of transportation alternatives.

The unknown costs of associated with maintaining a school concurrency program which does not exceed its adopted LOS, including on-site and off-site infrastructure, will be met and shared by all affected parties, consistent with the requirement for a financially feasible capital improvements program as provided in Attachment A, the adopted Interlocal Agreement Section 6, Joint Consideration of On-site and Off-site Improvements.

## F. CO-LOCATION / JOINT-USE ANALYSIS

Co-location and Joint-Use of facilities is required as a portion of the data and analysis requirement of Rule 9J-5.025, F.A.C, as well as a policy for the Public School Facility Element. Brevard County's Interlocal Agreement for Public School Facility Planning and School Concurrency (ILA) also addresses the consideration of co-location and shared use in Section 8 of the ILA. The following co-location maps, Figures 9-12, have been provided as a reference.

*Budget Considerations*: Co-location and shared use of facilities are important tools in budgeting and community building for the School Board, County and local governments. According to the ILA when preparing its Educational Plant Survey, the School Board will look for opportunities to co-locate and share use of school and civic facilities. Likewise, co-location and shared use opportunities shall be considered by the local governments when updating their comprehensive plan's schedule of capital improvements and when planning and designing new, or renovating existing, community facilities.

*Public Opportunity:* As the population continues to mature, leisure and cultural activities become desirable in a community. Middle and high schools are particularly well equipped to serve as community centers because of the capacity, parking and multi-purpose classrooms. Community associations and private organizations serving a range of needs could utilize schools located away from downtown areas. Middle and high schools should provide opportunities for community use. Elementary schools located in less urban areas may offer opportunities for use of their large rooms, such as the cafeteria or libraries.

*School Opportunity:* The School District would benefit from joint use of parks adjacent to or in the vicinity of public schools. The County's public golf courses could provide the high schools with more competitive scholastic opportunities through joint use.

*Development Opportunity:* Co-location is intended to provide efficient use of existing infrastructure and discourage sprawl. Identification early in a budget cycle and coordination among agencies will promote successful and effectively utilized public facilities. Cost effective co-location or joint use of district, county or city owned property could provide substantial savings for public facilities for existing and future facilities. Through school concurrency, proportionate share options for school district, local governments and developers to consider may include parks, and libraries near a planned public school. As residential development proceeds, opportunities for co-location and joint use should be incorporated in public facilities.

*Mutual Use Agreements:* For each instance of co-location and shared use, the School Board and Local Government shall enter into a separate mutual use agreement addressing legal liability, operating and maintenance costs, scheduling of use, facility supervision and any other issues that may arise from co-location and joint use.

Coordination: The Florida Statutes require the School District and the local governments to consider co-locating public schools and public facilities. The co-location and shared-use of facilities provide important economic advantages to the County, School District and local governments. During the preparation of its Educational Plant Survey, the School District can identify co-location and shared-used opportunities for new schools and public facilities. Likewise, co-location and shared use opportunities should be considered by the local governments when updating their comprehensive plan, schedule of capital improvements and when planning and designing new or renovating existing libraries, parks, recreation facilities, community centers, auditoriums, learning centers, museums, performing arts centers, and stadiums. Co-location and shared use of school and governmental facilities for health care and social services should also be considered.

**Figure 9-Co-Location Opportunities (Planning Area I)**

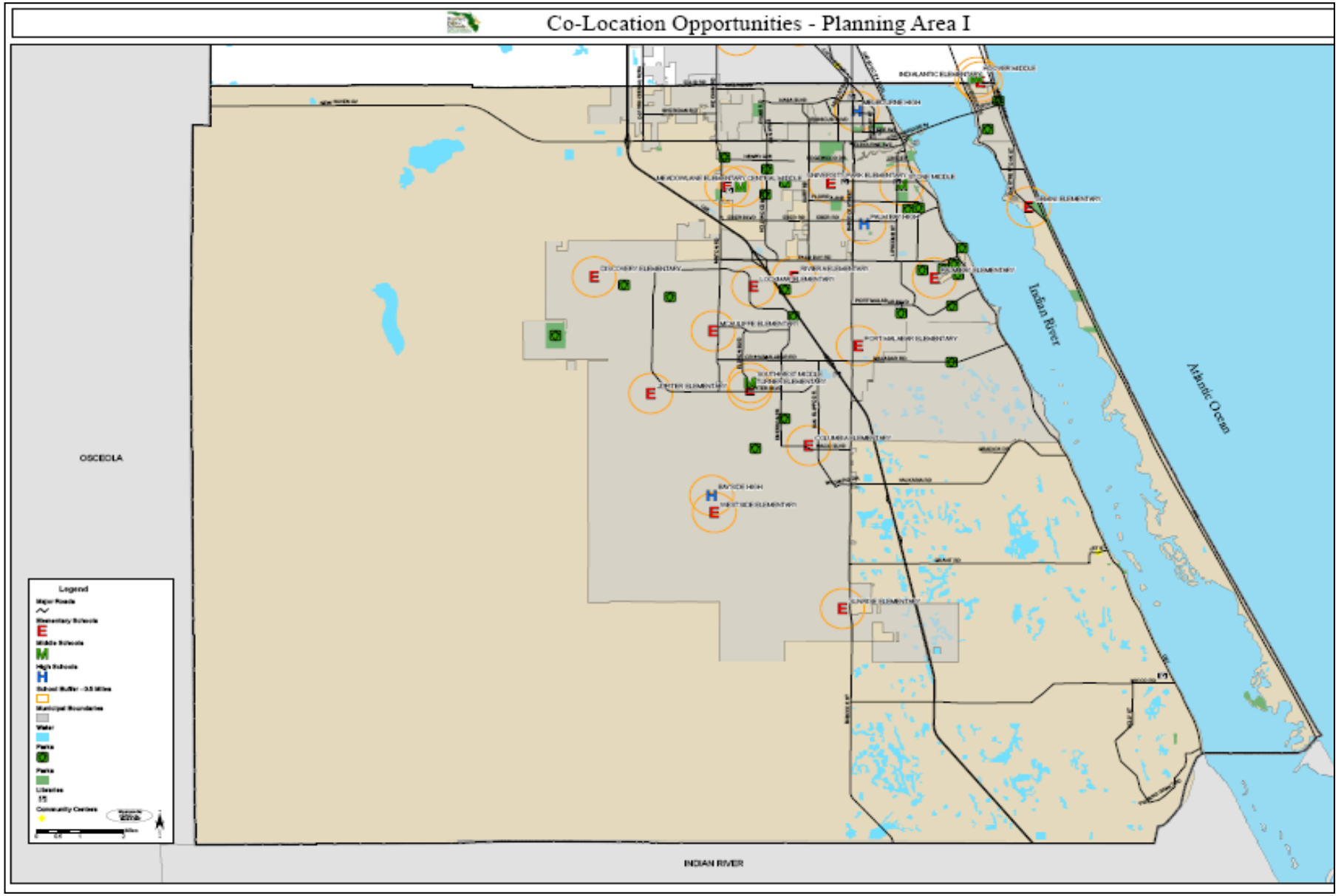


**Figure 10-Co-Location Opportunities (Planning Area II)**

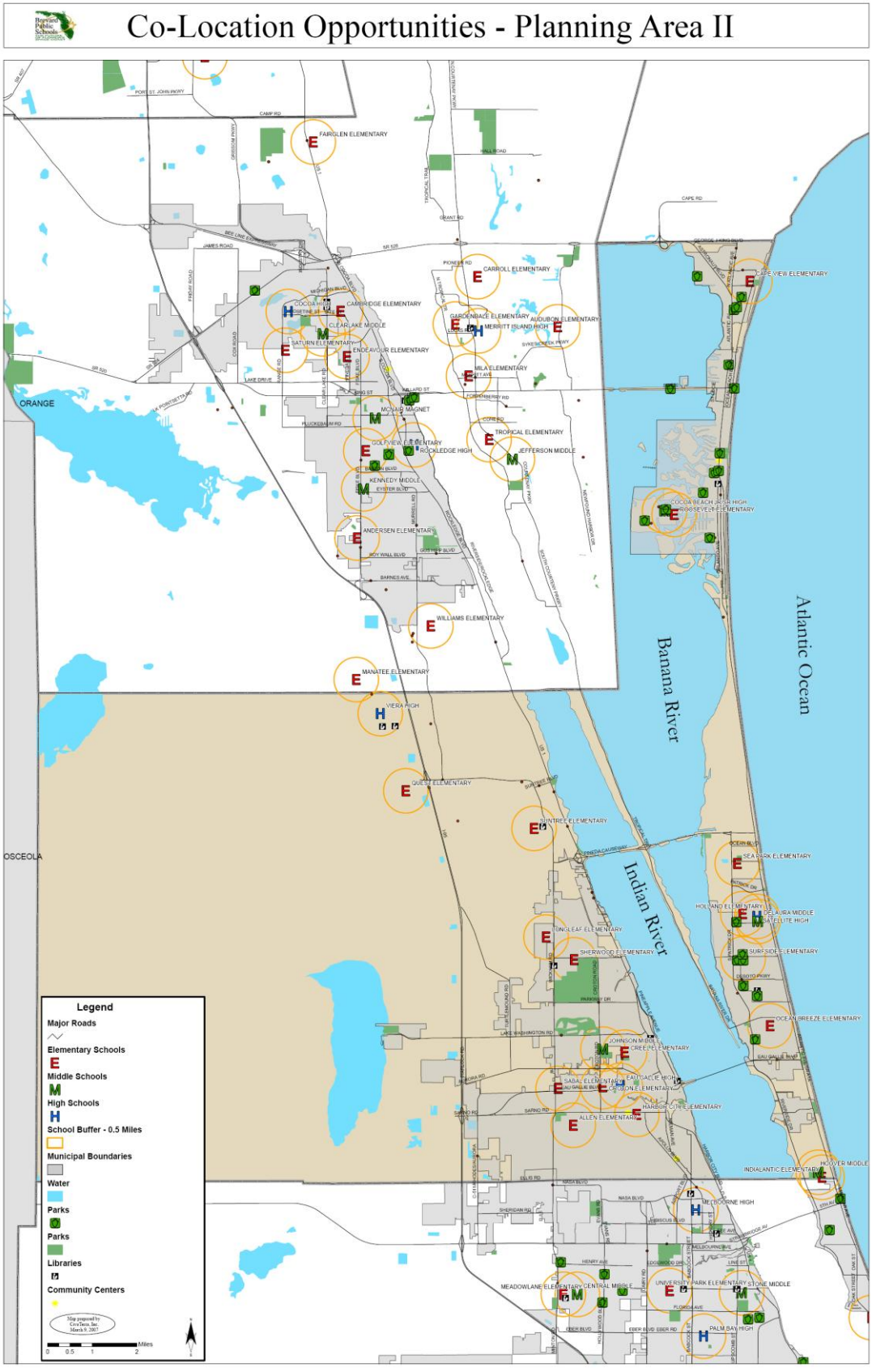


**Figure 11-Co-Location Opportunities (Planning Area III)**

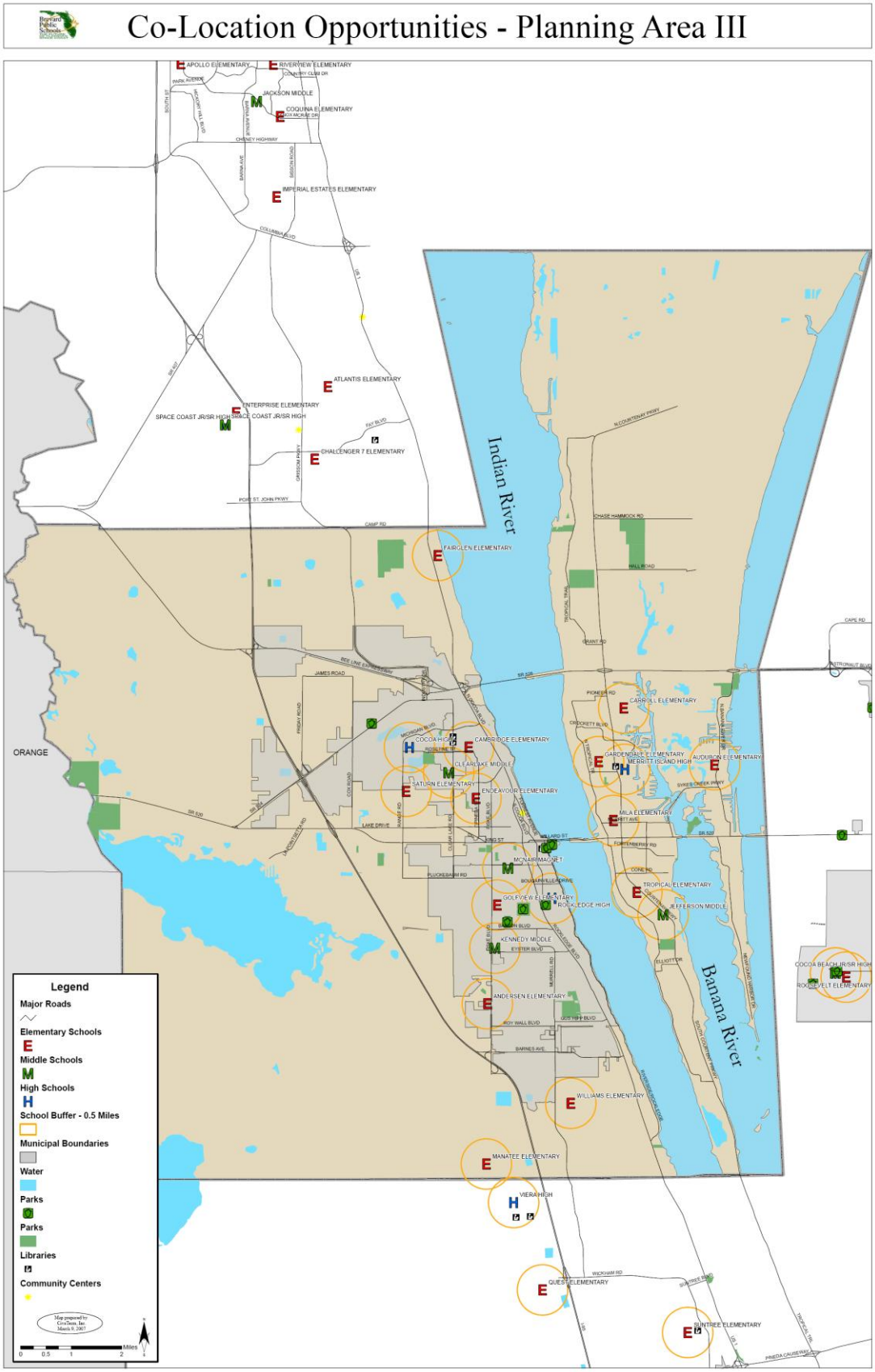
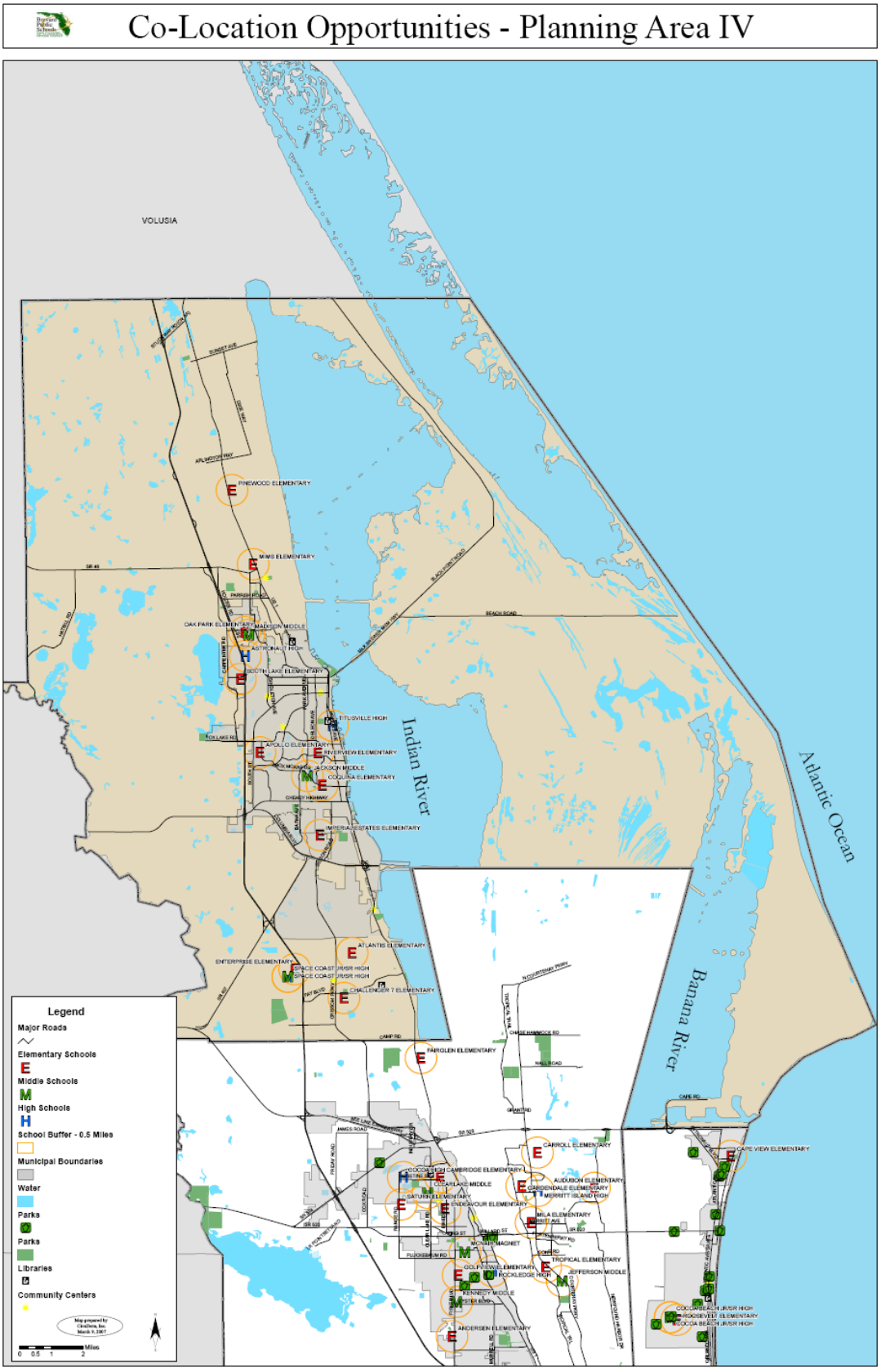


**Figure 12-Co-Location Opportunities (Planning Area IV)**



## G. SUMMARY

Florida law requires that the public school facilities element of a local government comprehensive plan address how the level of service standards will be achieved and maintained for school concurrency. The ability to achieve and maintain the adopted level of service must be based on a school district's financially feasible Five-Year Capital Facilities Plan. Furthermore, the law requires that the public school Level of Service (LOS) standards be adopted into local government capital improvements element, and must apply within each concurrency service area (CSA) to all schools of the same type (elementary, middle, Jr/Sr high and high).

Brevard County uses the school attendance boundaries as the CSA, therefore the LOS standard applies for each school. Initial shortfalls in Brevard County School District's capacity over the five-year period following adoption are addressed by adopting a tiered level of service standard and if needed a longer term for capacity catch-up with a concurrency management system.

The Brevard School District's Five-Year Capital Facilities Plan is required to be financially feasible and to address existing deficiencies to attain the adopted level of service, and maximize school utilization. Capacity is added in accordance with the annually adopted financially feasible Five-Year Capital Plan. Once the adopted level of service for each type of school has been achieved in 2011-12, the level of service will apply to all schools of the same type (elementary, middle, high). Brevard County's adopted level of service of 100 percent can be met by school year 2011-12 through coordinated planning, enrollment adjustments and a financially feasible capital plan.

## ATTACHMENTS

A-D are contained on the CD

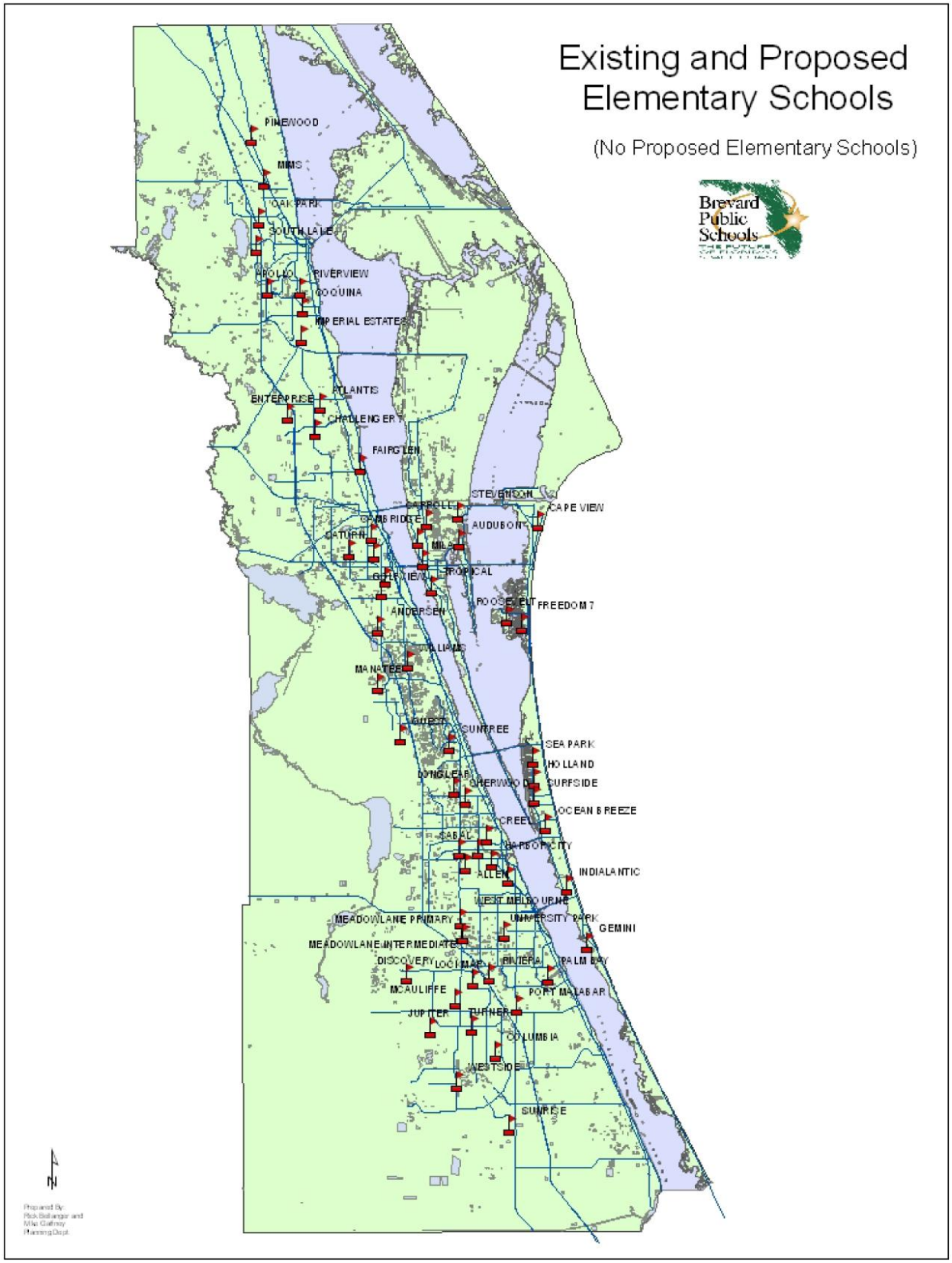
(too extensive to be printed)

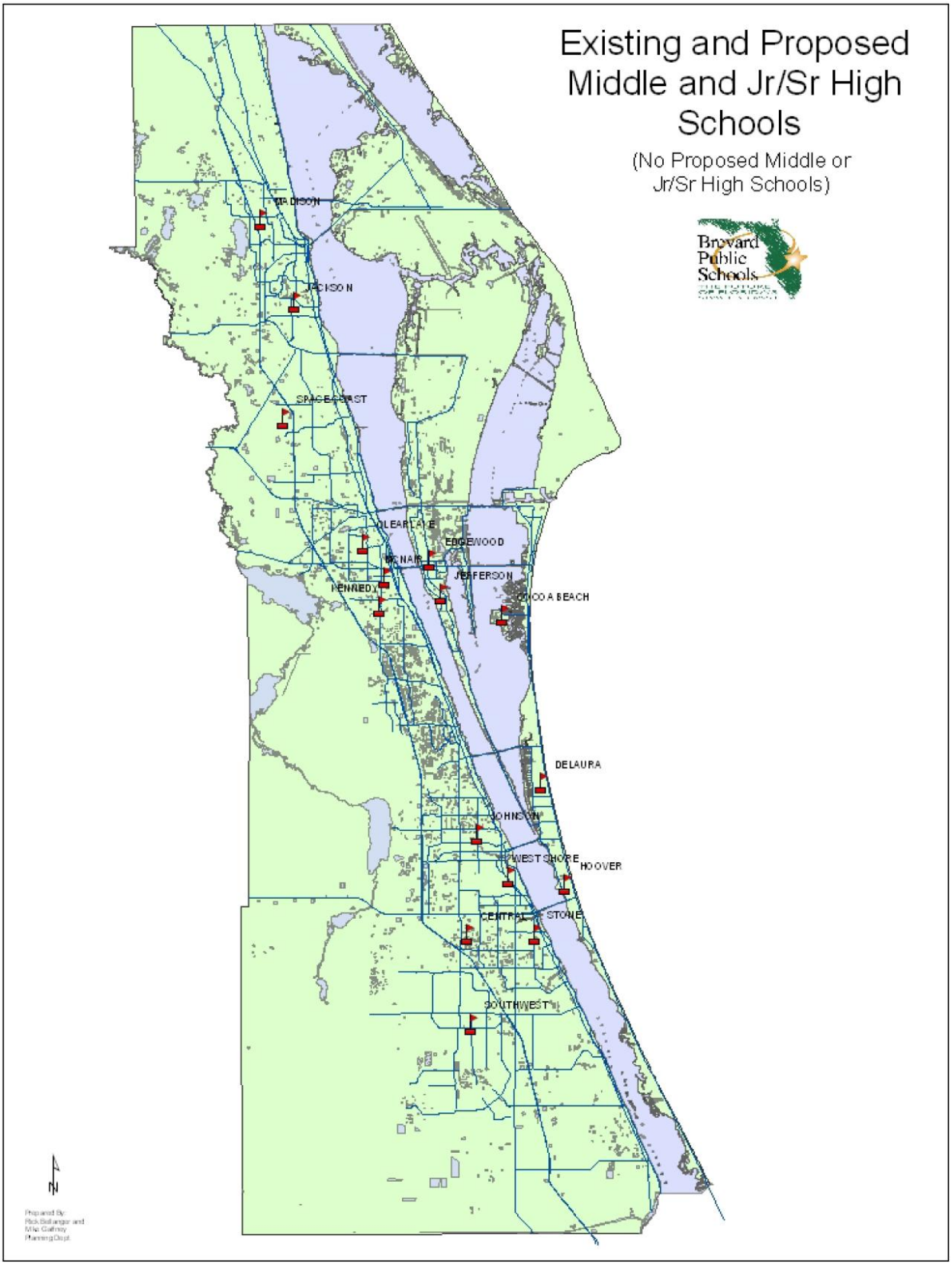
## APPENDICES

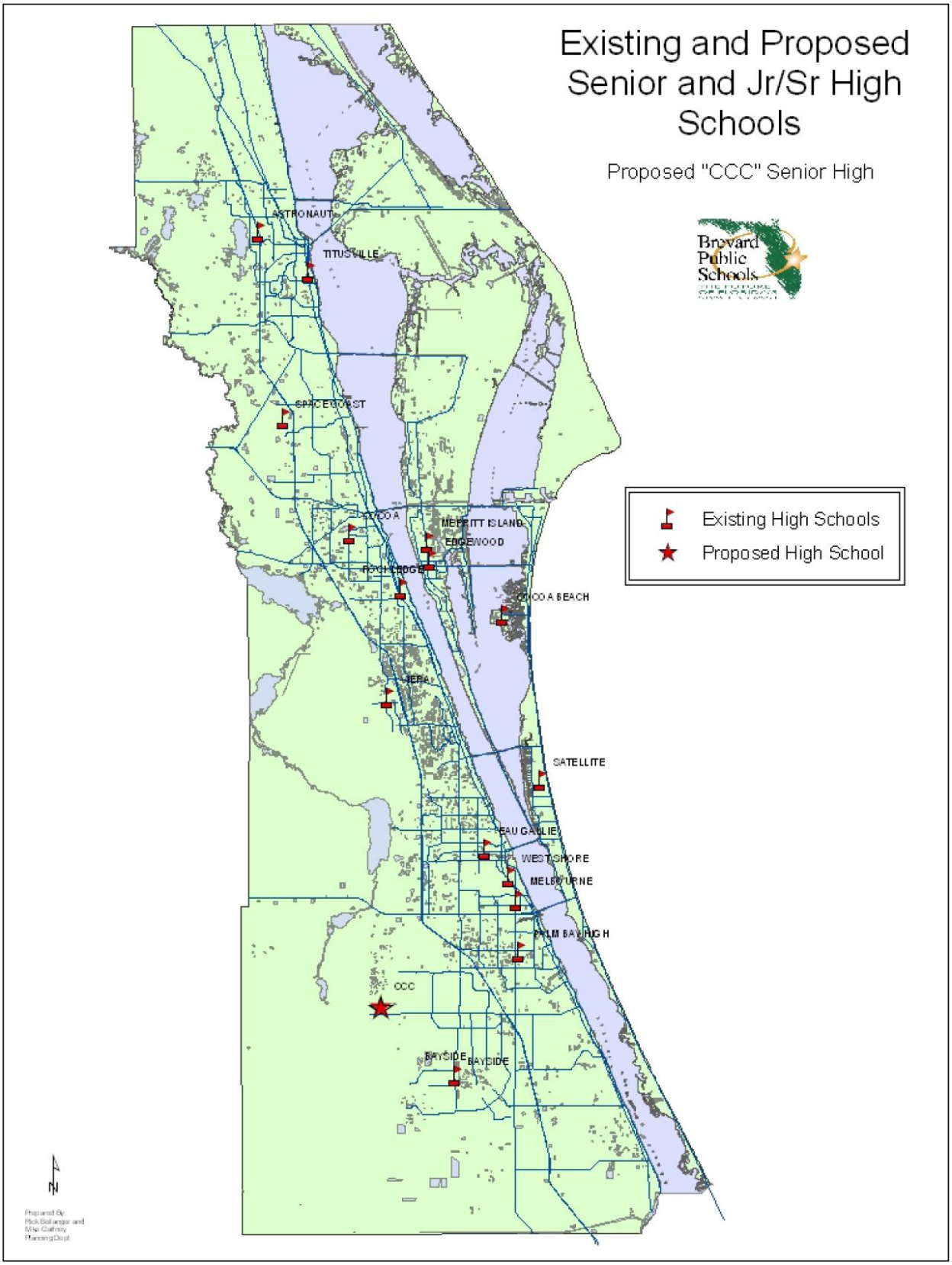
A-D are contained on the CD

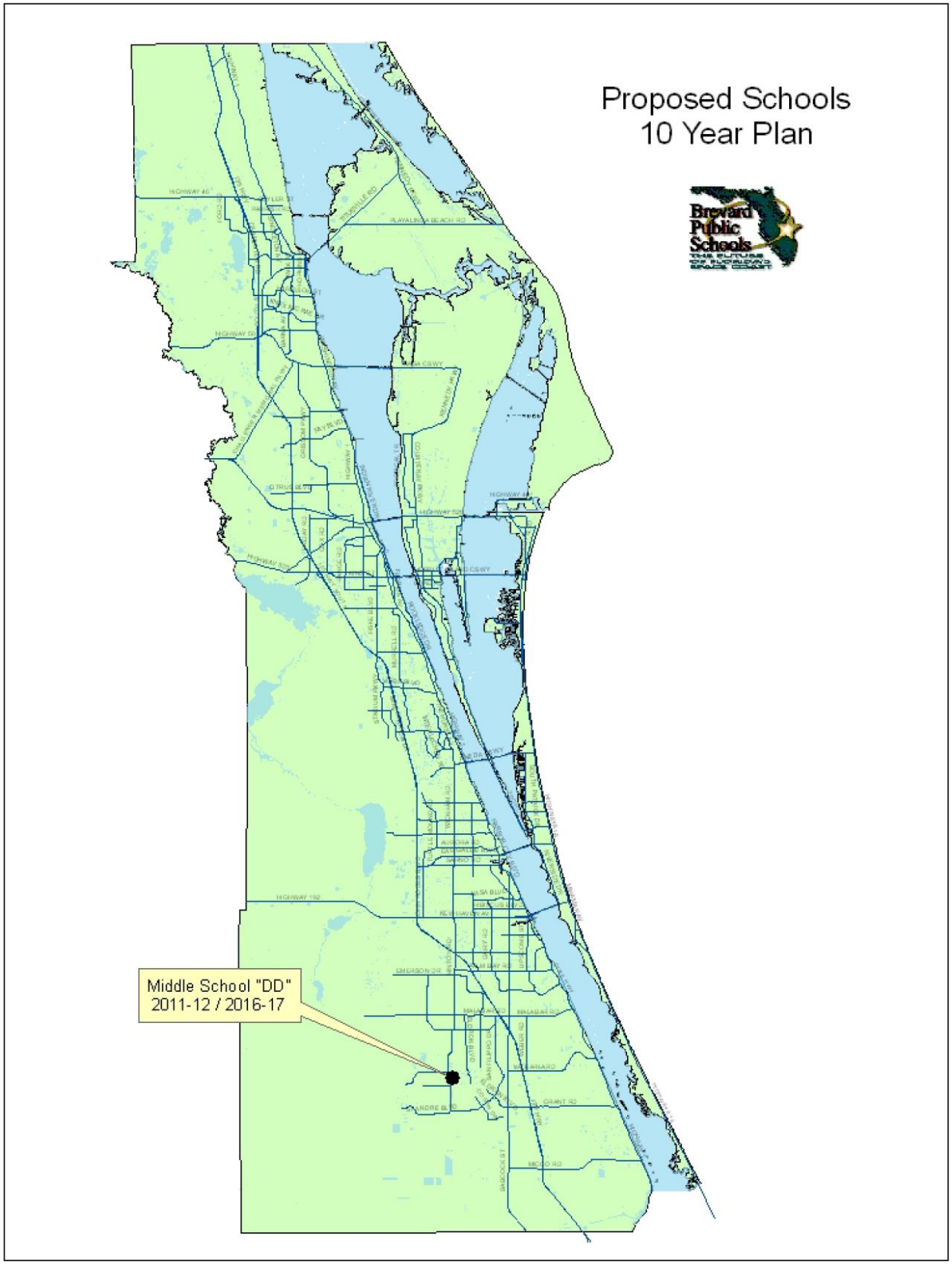
(too extensive to be printed)

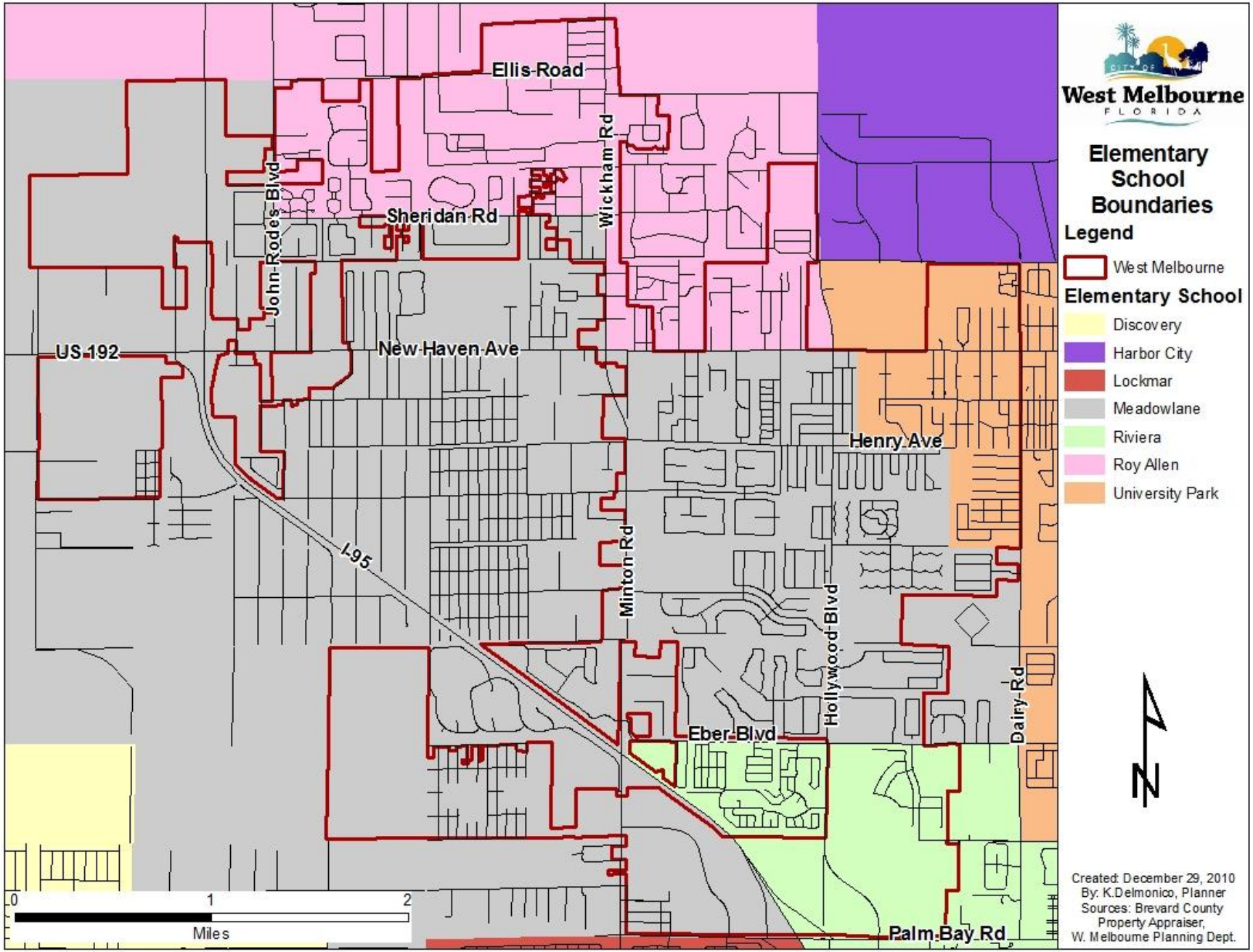
## H. MAP SERIES

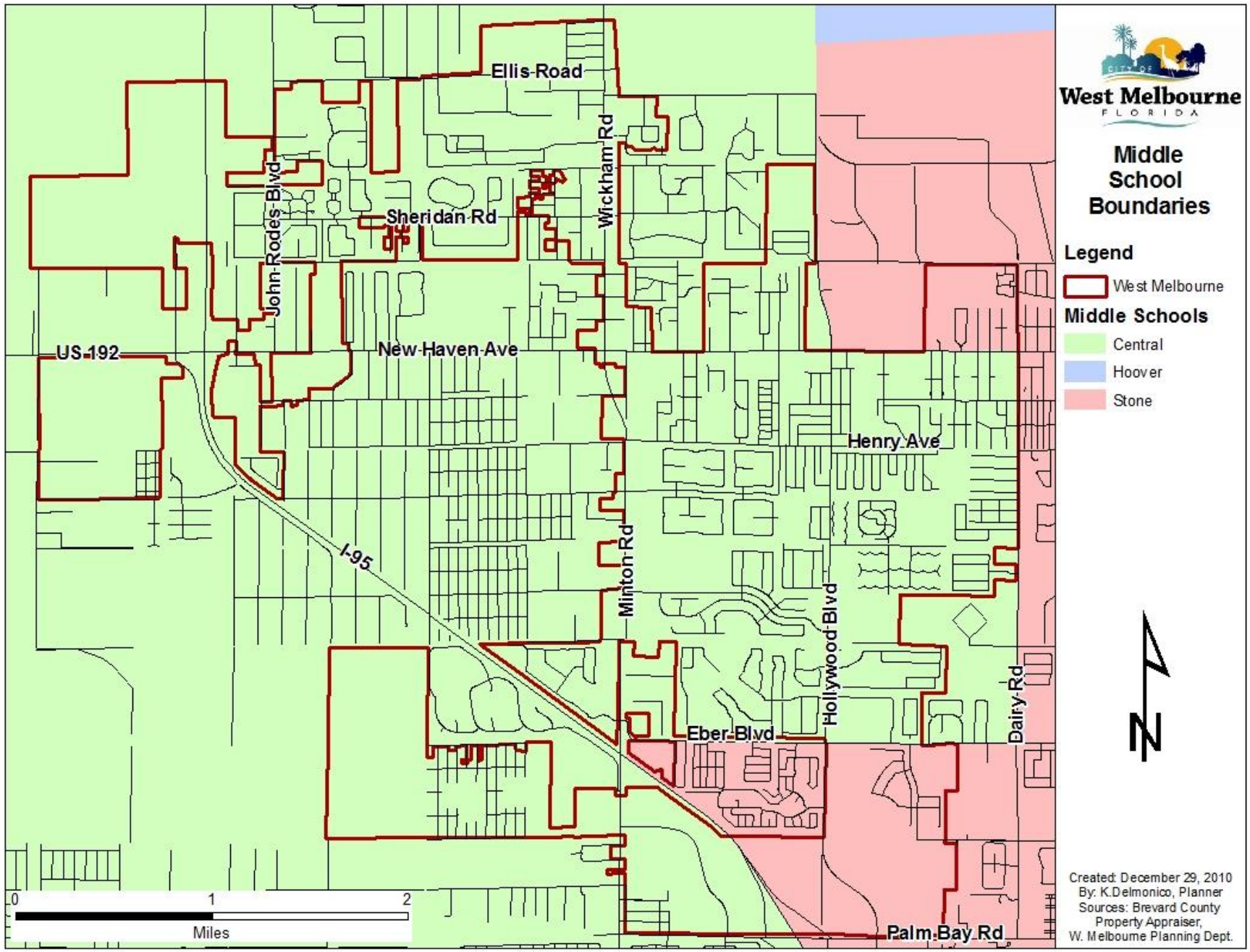

Existing and Proposed
Elementary Schools
(No Proposed Elementary Schools)
Brevard
Public
Schools
PINEWOOD
MIMS
OAK PARK
SOUTH LAKE
APOLLO
RIVERVIEW
COQUINA
IMPERIAL ESTATES
ATLANTIS
ENTERPRISE
CHALLENGER 7
FAIRGLEN
STEVENSON
CAPE VIEW
CARROLL
CAMBRIDGE
AUDUBON
CASTLE
MILA
TROPICAL
GOLDEN VIEW
ROOSEVELT
FREEDOM 7
ANDERSEN
WILLIAMS
MANATEE
SUNTREE
SEA PARK
HOLLAND
LONGLEAF
SHERWOOD
SURFSIDE
OCEAN BREEZE
CREEL
CABAL
HARBOR CITY
ALLEN
INDIALANTIC
WEST MELBOURNE
MEADOWLANE PRIMARY
UNIVERSITY PARK
GEMINI
MEADOWLANE INTERMEDIATE
DISCOVERY
LOCKMAR
RIVIERA
PALM BAY
MCAULIFFE
PORT MALABAR
JUPITER
TURNER
COLUMBIA
WESTSIDE
SUNRISE
N
Prepared By:
Rick Ballenger and
Mike Gaffney
Planning Dept.


Existing and Proposed Middle and Jr/Sr High Schools
(No Proposed Middle or Jr/Sr High Schools)
Brevard Public Schools
MADISON
JACKSON
SPACE COAST
CLEARLAKE
EDGEWOOD
MCNAIR
JEFFERSON
KENNEDY
COCOA BEACH
DELAURA
JOHNSON
WEST SHORE
HOOVER
CENTRAL
STONE
SOUTHWEST
N


Existing and Proposed Senior and Jr/Sr High Schools
Proposed "CCC" Senior High
Brevard Public Schools
Existing High Schools
Proposed High School
ASTRONAUT
TITUSVILLE
SPACE COAST ST
COCOA
MERRITT ISLAND
EDGEWOOD
COCOA BEACH
SATELLITE
EAU GALLIE
WESTSHORE
MELBOURNE
PALM BAY HIGH
CCC
BAYSIDE
BAYSIDE


Proposed Schools
10 Year Plan
Brevard Public Schools
Middle School "DD"
2011-12 / 2016-17


Ellis Road
Sheridan Rd
John Rodes Blvd
Wickham Rd
US 192
New Haven Ave
Henry Ave
I-95
Minton Rd
Hollywood Blvd
Dairy Rd
Eber Blvd
Palm Bay Rd
0
1
2
Miles
West Melbourne
FLORIDA
Elementary School Boundaries
Legend
West Melbourne
Elementary School
Discovery
Harbor City
Lockmar
Meadowlane
Riviera
Roy Allen
University Park
N
Created: December 29, 2010
By: K.Delmonico, Planner
Sources: Brevard County Property Appraiser,
W. Melbourne Planning Dept.


West Melbourne
FLORIDA
Middle School Boundaries
Legend
West Melbourne
Middle Schools
Central
Hoover
Stone
Ellis Road
Sheridan Rd
John Rodes Blvd
Wickham Rd
US 192
New Haven Ave
Henry Ave
I-95
Minton Rd
Hollywood Blvd
Dairy Rd
Eber Blvd
Palm Bay Rd
0
1
2
Miles
N
Created: December 29, 2010
By: K.Delmonico, Planner
Sources: Brevard County Property Appraiser,
W. Melbourne Planning Dept.